Teacher EDITION

Junior Scholastic

FEBRUARY 9, 1955 • VOL. 36 • NO. 2

TEACHING GUIDE
Based on Materials in This Issue

Troubled South Africa (pp. 6, 7)
How We Live in South Africa (p. 8)
"Americanrita" (p. 25)—for reluctant readers
Right This Way (p. 26)
Sports (p. 26)

SOUTH AFRICA

Concepts Developed in the Theme Article

South Africa has great wealth in its large gold and diamond mines, fertile soil, and growing factories. But its future is clouded by trouble among its various racial groups.

Suggesting for Using the Theme Article

MAKING HISTORICAL COMPARISONS

Aims: 1. To relate the dates on which significant events occurred in South Africa with important happenings in a similar period of our country.

2. To appreciate the growth which has occurred in our country as compared to that of South Africa.

To the pupils: The article tells that South Africa was first colonized by the Dutch in 1652. That was not long after the first permanent colony was started in this country. Do you remember the date? (1620) So the two countries are almost the same age. Recall some of your American history and place some important happening in our country at about the same time vital changes were occurring in South Africa. Use the dates in the article as guides and select an important event of our country for a corresponding time. For example, you might pair the founding of our present government in 1789 with the British taking possession of South Africa about 1800.

List your items in the following way:

South Africa	*U. S.*
1652—Dutch colonists settled near Capetown.	1620—Pilgrims settled at Plymouth, Mass.

SOCIODRAMA

Aims: 1. To become better informed on problems yet to be solved.

2. To give pupils practice in gathering and correlating information.

3. To develop a sense of responsibility by encouraging class activities that call for initiatives.

To the teacher: After the article has been read and discussed, ask for some capable volunteers to do further research in order to present South Africa's present situation vividly to the class. They will read magazines and newspaper articles which will give them further background. Allow sufficient time for them to prepare their material.

To the pupils: Will four or more people volunteer to do further reading on this subject in order to dramatize an interview with the new prime minister, Johannes Strijdom (pronounced STRAY-dom)? They will read articles and news reports on the situation and problems of South Africa and from them cull questions to ask.

The reporters might submit the list of questions they plan to ask to the one who will play the part of the prime minister, so he can look up answers to suit the part he plays.

SPECIAL ACTIVITIES

Ask volunteers to gather information and give informal talks on some of the following topics:

Kruger National Park (There have been several excellent magazine articles on it.)

The Boer War

Diamond Mines

Girl Guide of South Africa

Aims: 1. To gain practice in writing a letter.

2. To exchange experiences with a girl who lives in a distant country.

To the pupils: Gillian will enjoy getting letters from you, especially since she has visited the U. S. But do not be disappointed if she does not answer your letter, as she will be able to reply only to a few of the many she will receive.

As you read her letter, underscore parts that are of particular interest to you. That will give you some ideas on what to include in your letter. For example, are you fond of swimming, too? How would you like to swim at one of the South African beaches?

"AMERICANRITA"

SILENT READING AND DISCUSSION

Aims: 1. To encourage reluctant readers to read and get ideas, not just words.

2. To give pupils practice in putting into their own words what they have read.

To the teacher: Tell the pupils the name of the school and the city and country Francie is in. Then ask them to underline any words they need help on. You can tell them several at a time as you pass from one to another.

To the pupils: Francie's experience in school in Madrid was quite different than the one in Portugal. Be thinking about answering these questions as you read:

1. What do you think of the three teachers she visited?
2. Which one do you think was the best teacher? Why?
3. Does Francie let you know how she feels about that school?
4. What gave you your impression?

LOOKING AHEAD WITH JUNIOR SCHOLASTIC

February 16, 1955

Special Issue: CONGRESS AT WORK (16 pages on Congress and how it operates)
Short Story: "Master Race"
Francie's Schoolmates Overseas: Italy
Stamp column and cover: "Topical collecting"—The Lord's Prayer

5. What impression did Francie get of the girls?
6. Did the girls like Francie?

RIGHT THIS WAY

To the teacher: The first two of the problems posed in this article lend themselves to dramatization. What to say in a given situation is always a problem to a self-conscious teen-ager.

Ask several pairs of volunteers to act out the situation. They should be given a brief time to plan and then present their sketch to the class. Instead of having verbal criticism, suggest that those who have a better or a different idea choose a partner and act out their changes.

Some groups may enjoy doing the scene two ways—first the wrong way, and then the proper way.

The class may want to enlarge the problem to that of meeting other people in social situations. Some of them might be:

You call for your date and she introduces you to her mother? What does she say? What do you say?

You call for your date and her father opens the door. You have never met him. He waits for you to speak. What should you say?

SPORTS INTERVIEW

To the teacher: This problem might have more appeal to boys than girls. Since the World Friendship Series has only one interview (with a girl), the girls might write to Gillian while the boys try the sports article.

To the pupils: Read the sports article, "The Big Cat." Notice the kinds of information Mr. Masin includes in his interview. Make a list of the questions you think he might have asked Kenny Sears.

Now pick someone in your class who is good in a sport. Ask him your questions. Make notes of his answers. Then write an account which could be used in a newspaper—perhaps your school paper.

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QUICK QUIZ

Ten Questions for a Five-minute Quiz

1. What island is the headquarters of Chiang Kai-shek and the Chinese Nationalists? (Formosa)
2. What landlocked country gets an outlet to the sea by way of a newly completed road-and-railroad transportation route between Brazil and Chile? (Bolivia)
3. Is the deepest hole ever drilled about 5,000 feet deep, four miles deep, or 1,500 miles deep? (four miles deep)
4. Speaking of basketball, who is known as the "Big Cat"? (Kenny Sears)
5. South Africa's government believes in keeping people of different races apart. Is this policy called volkspele, apartheid, or Boer? (apartheid)
6. Is South Africa's chief source of wealth its mines, factories, or fisheries? (mines)
7. Which of these words refers to South Africans of Dutch descent: Afrikaners, Bantus, United party? (Afrikaners)
8. If you lived in South Africa, what languages would you study in school? (Afrikaans and English)
9. What is the high plateau of inland South Africa called? (the veld)
10. A study shows that the word most often misspelled by boys and girls is "question." Spell it.

Answers to Quiz-word Puzzle, p. 29

ACROSS: 1-of; 3-in; 5-deaf; 8-Anne; 10-E.N.E.; 11-rod; 12-trade; 14-Lincoln; 16-P.I.; 17-str.; 18-O.K.; 20-law; 22-any; 23-Rep.; 25-S.S.E.; 26-Booth; 28-try.

DOWN: 1.O.D.; 2-fee; 3-Ind.; 4-N.E.; 6-anti; 7-ferns; 8-ardor; 9-Noel; 13-act; 14-liar; 15-none; 16-pl.; 19-Ky.; 21-web; 22-ash; 24-pot; 25-sty; 27-or.

Answers to Citizenship Quiz, p. 31

1. NEWS ON PARADE (42 points): 1-c; 2-b; 3-a; 4-b; 5-b; 6-a.
2. HERE'S SOUTH AMERICA (42 points): 1-i; 2-f; 3-j; 4-e; 5-g; 6-b.
3. REPORT ON FRANCIE (16 points): 1-Ohio; 2-Europe; 3-Spain; 4-"Americanrita."

Tools for Teachers

Switzerland

Feb. 23 in *Junior Scholastic*

PAMPHLETS: *All About Switzerland,* no date, free; *Map of Switzerland* (24 by 36 inches), no date, free; Swiss National Tourist Office, 10 West 49th Street, New York 20, N. Y.

BOOKS: *Land of William Tell,* by Lillian Bragdon, $2.75 (Lippincott, 1953). *The Apple and the Arrow,* by Mary M. Buff (fiction), $3.00 (Houghton, 1951).

FILMS: *Children of Switzerland,* 11 minutes, sale or rent, Encyclopaedia Britannica Films, Inc., 1150 Wilmette Ave., Wilmette, Ill. Influence of Alpine environment on a typical Swiss farm family. *Let's Look at Switzerland,* 13 minutes, sale or rent, Films of the Nations, Inc., 62 West 45 Street, New York 36, N. Y. Country and the people. *Mountain Farmers,* 20 minutes, sale, Educational Film Dept., United World Films, Inc., 1445 Park Ave., New York 29, N. Y. Typical family living in the Emmenthal Valley. *Switzerland Today,* 18 minutes, sale, McGraw-Hill Book Co., Text-Film Dept., 330 West 42 Street, New York 36, N. Y.

FILMSTRIPS: *A Family of Switzerland,* 46 frames, Young America Films, Inc., 18 East 41 Street, New York 17, N. Y. Life of a farm family living near Berne. *Switzerland, The Land and Its People,* 37 frames, Society for Visual Education, Inc., 1345 W. Diversey Pkwy., Chicago 14, Ill. Customs, activities, interests of the people, architecture, landscapes, industries.

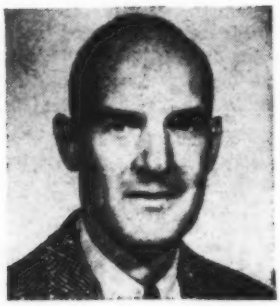
JUNIOR SCHOLASTIC, published weekly during the school year September through May inclusive, except during school holidays and at mid-term. Entered as second-class matter at Post Office at Dayton, Ohio, under Act of March 3, 1879. Contents copyright, 1955, by Scholastic Corporation. Member, Audit Bureau of Circulations. SUBSCRIPTION PRICES: $1.00 a school year or 50c a semester. Single subscriptions, Teacher Edition, $1.50 a school year. Single copy, 10c, except special issues, so designated, which are 20c each. Office of Publication, McCall St., Dayton 1, Ohio. Indexed in Subject Index to Children's Magazines, Madison, Wisc.

Junior Scholastic

OUR WORLD-VIEW MAGAZINE FOR SCHOOL AND HOME VOLUME 36 • NUMBER 2 • FEBRUARY 9, 1955

ETHAN ALLEN

BASEBALL COACH, YALE UNIVERSITY



TELLS YOU

"How to get in top condition to star in baseball"

"The baseball players who star," says Coach Allen, "are those who are always in top condition. Play their best over the full nine innings – day in and day out.

"To build up this top condition, I recommend the following eating habits:

1. "Eat three regular meals at regular times.

2. "Avoid excess of starchy foods, sweets. They add pounds, not stamina.

3. "Eat basic high-protein foods for breakfast – like meat, milk, and Quaker Oats. Protein gives you greater strength and staying power. And oatmeal gives you more of this muscle-building protein than any other leading cereal.

4. "After practice or a game, go home and rest. Wait about an hour before eating."

NOW – INSTANT OATMEAL WITH NEW QUICK

QUAKER OATS

Cooks creamy in 50-60 seconds

Mother's Oats and Quaker Oats are exactly the same

Junior Scholastic

A National Magazine for Junior High School and Upper Elementary Grades, Published Weekly During School Year.

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NEWS ROUNDUP

Dobbins in the Boston Post

Red China's target: Formosa Island.

"Defend Formosa" Power Is Given to President

Congress has given President Eisenhower power to use U.S. armed forces, if necessary, to defend Formosa. This island is the headquarters of the Chinese Nationalist government, led by Chiang Kai-shek. Red China is threatening to invade Formosa *(see last week's issue)*.

The President had asked Congress for permission to use our armed forces to prevent Red China from invading Formosa and nearby islands called the Pescadores.

Congress approved his request by an overwhelming margin. The vote was 409 to 3 in the House of Representatives and 85 to 3 in the Senate.

U.S. armed forces, said President Eisenhower, are in the Formosa area strictly for "defensive purposes." He said that he alone would decide whether to use our armed forces for an attack.

AIDING THE NATIONALISTS

Here are the main parts of President Eisenhower's plan for helping Nationalist China:

1. The Tachen Islands. These islands lie 200 miles north of Formosa. They are occupied by Nationalist troops. The President wishes to use U.S. ships and planes to take the troops, about 15,000 in all, off the Tachens. The troops would be brought back to Formosa. Some 10,000 fishermen and their families also would be taken off the Tachens.

2. Islands near the mainland. Nationalist China also occupies some other islands only a few miles from the mainland of Red China. The President has the power to order U.S. planes and ships to defend these islands—if he believes such action is needed to protect Formosa.

3. Stopping an invasion. Suppose Red China launches an invasion of Formosa. U.S. planes and ships would help defend the island against the invading forces. The President also has the power to order our planes and ships to bomb and shell the mainland—to break up an invasion attempt.

U.N. HOLDS TALKS

As we went to press, the United Nations Security Council was trying to arrange an end to the conflict between Nationalist and Red China.

Wes Santee of Kansas Sets World Mark for Indoor Mile

Wes Santee of Lawrence, Kan., has set a new world record for running the mile indoors. His time was 4 minutes 03.8 seconds. Denmark's Gunnar Nielsen finished second, 32 yards behind. The race was run at Boston, Mass.

Santee also holds the U.S. record for running the fastest mile outdoors, 4 minutes and six-tenths of a second. The world record for the outdoor mile is 3 minutes, 58 seconds set by Australia's John Landy.

Bolivia Gains Outlet To the Atlantic Ocean

Landlocked Bolivia is winning a battle over geography.

She has completed a railway line, which gives her an outlet to the sea at Santos, Brazil. This 423-mile line is the last link in a 2,300-mile road-and-railway line from coast to coast. It's the first transportation system to span South America by way of Bolivian territory.

The route winds across southern Brazil, the heart of Bolivia, and the northern tip of Chile *(see map)*. It links Chile's port of Ariea on the Pacific Coast with Santos on the Atlantic Coast. Santos is the port for Sao Paulo, Brazil's second largest city and industrial center.

Bolivia, about twice the size of Texas, is rich in tin, silver, gold, oil, lead, and other minerals. She produces coffee, wheat, sugar cane, cotton, wool, cacao. But Bolivia has a hard time transporting her minerals and products. She has no seacoast and no port of her own. And the land is so rugged, Bolivia has few railways or good roads.

HELP FOR BOLIVIA

Bolivia's lack of railways and good roads has held back the growth of farms. Farmers now will find it easier to get supplies and send their crops to market. And Bolivia will be able to sell more of her minerals and products overseas.

Map adapted from Newsweek

Map shows route of newly completed road-and-railway system across South America.

Carthage Group Saves Railroad from Dying

"We're all getting a great kick out of our railway."

So says one of the 62 residents of Carthage, Miss., who helped keep a railway from "dying" last month. It's the Canton & Carthage Railroad, a freight line. The C & C runs from Carthage 36 miles west to Canton, Miss., where it connects with the Illinois Central Railroad.

A lumber company owned the 30-year-old C & C. But the company decided to abandon the line.

That's where the 62 "life savers" stepped in. Led by their mayor and other prominent persons, they held meetings and voted not to let the C & C die. Loss of the line, they said, would be a blow to Carthage. Businessmen need the C & C to get in supplies and send out their products, such as pulpwood and cotton.

"And we'll miss the locomotive's whistle," said one person. So the group raised $22,500 and bought 90 per cent ownership of the line. The Canton lumber company holds the other 10 per cent.

To pep up business for their line, the new owners have asked Carthage merchants to help out. Merchants are urging suppliers to ship all goods to Carthage on the C & C.

The C & C has two steam locomotives, two boxcars, a caboose, a handcar, two stations, and a repair shop.

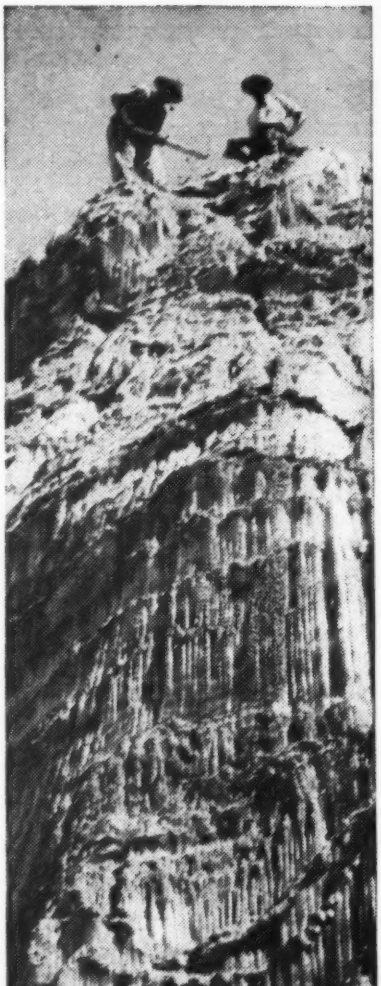
Costa Rican Rebels Defeated As Two-week Rebellion Ends

The rebellion in Costa Rica *(see last week's Junior Scholastic)* ended after two weeks' fighting. The rebels were defeated.

Costa Rica claimed that the rebels had entered Costa Rica from Nicaragua. The Organization of American States (OAS), to which all the 21 republics of the Americas belong, stepped in. Under a treaty made in 1947, its members promise to act together to keep peace in the Western Hemisphere.

OAS asked the rebels to leave Costa Rica and go to Nicaragua. Most of them did so.

Bad feeling continues between Costa Rica and Nicaragua. The OAS is keeping observers near the border between the two countries in hope of preventing another flare-up.



Dominican Republic photo

SALT MOUNTAIN SALT

The photo shows part of the world's biggest chunk of salt—the Dominican Republic's Salt Mountain. It's 14 miles long, 350 feet high, and contains 500 million tons of salt. In 1955, about 600,000 tons will be mined from the mountain. Most of this will be sold to the U.S. Americans eat an average of six pounds of salt a year—nearly 500,000 tons. Another five million tons are used by industries to cure meat, make auto parts, tan leather, and in thousands of other ways.

NEWS ROUNDUP

Ticket Stub Helps Save Swede "Buried" in Snow

The bright red stub of an old movie ticket helped save the life of a Swedish trapper last month. For eight days and nights he was buried alive under an avalanche of snow in Sweden's Arctic wilds.

He is Evert Stenmark, 25, a fur trapper. Stenmark was traveling on skis to hunt ptarmigan, a small game bird of the Arctic. He had killed three of the birds, when a sudden snowstorm raged about him.

Stenmark started to head for his home at Tarnaby in northern Sweden. But he didn't get far. An avalanche of snow roared down on him. The snow completely buried him—except for a small hole through which he could breathe.

MAKES A "FLAG"

He was unable to move his legs. The skis had crossed and were weighed down by the snow. After a struggle, Stenmark managed to free his hands. In one of his pockets, he found a red ticket stub. Within his reach lay a five-foot birch twig. He tore off a thread from his clothing. Then he tied the stub to one end of the twig. Slowly, he pushed the twig up through the snow. He could not tell whether his "flag" had reached the top of the snow "blanket."

Stenmark ate raw ptarmigan during the eight days. To quench his thirst, he melted handfuls of snow in his mouth. Meanwhile, a rescue party on skis, led by Stenmark's brother, Kjell, was searching for him. Kjell spotted the red stub sticking out of the snow.

The frost-bitten trapper was rescued from under three feet of snow. Doctors say he will recover.

FALLS 1,000 FEET—AND LIVES!

Another remarkable escape from death in the Arctic occurred in Alaska last month during Exercise Snowbird. This was the name of a U.S. Army training mission to teach soldiers how to survive freezing weather and deep snow. Paratroopers took part in the mission. One of them, Stanley Melczak of Hamburg, Pa., fell 1,000 feet when his parachute did not open. Melczak landed in a four-foot snow bank. And the only injury to the rugged 'trooper was a sore shoulder!

Science News

News in a Nutshell

Question: What word do boys and girls most often misspell?

Answer: Question!

Those who spell *question* wrong, reports the University of California, usually leave out the *e*, or spell *question* with two *i*'s.

The most common error of poor spellers is to leave out a silent letter, such as an *e*. For example, here's how they spell: *befor, mor, tabl.* Poor spellers also add an extra letter to many words: *allmost, carefull, allready.* Often they misspell a word because they don't pronounce it correctly. As a result, they'll spell *purty* for pretty, *famly* for family, *suprise* for surprise.

Workers have stopped drilling the world's deepest hole, near Bakersfield, Calif. About 21,480 feet deep (more than four miles), the hole was intended to be an oil well. But all that ever came up from the well was water. "The oil deposit we tried to reach is much deeper than we thought," said an official of the company which drilled the well for three years. "But we learned much about drilling deep wells."

In Vienna, Austria, a man has developed a machine *(cartoon below)* to warm your feet. You drop a coin in a slot and step on a platform. For 15 seconds, short waves—something like radio waves—pass through your feet. You can't feel the waves but they help circulate your blood—and your feet become warm.

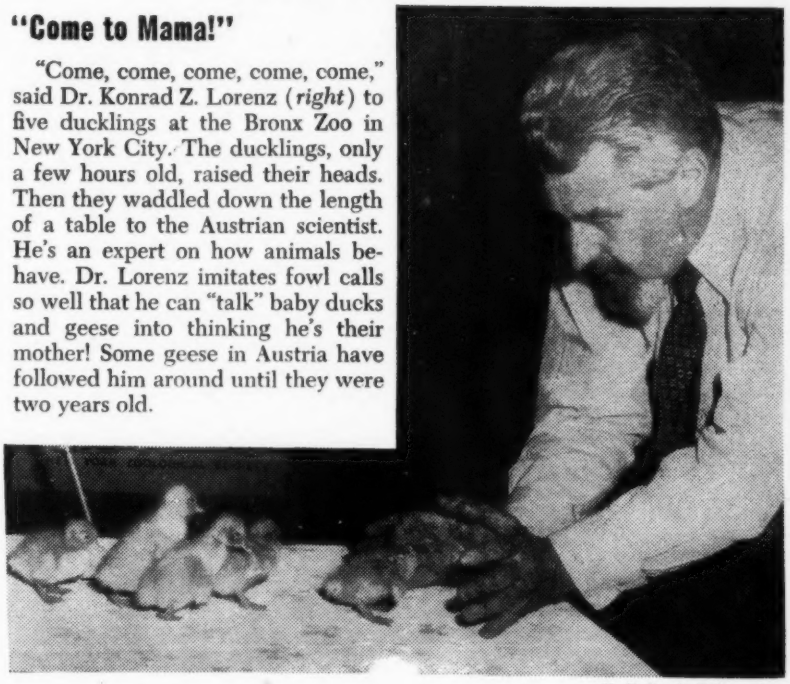
In Solna, Sweden, car owners are using curbside heaters, such as the one pictured below, to keep motors warm. The electric heater is connected by a wire to a special heater under the hood. Motorists can rent a "heater meter" for $20 a year.

U. P. I. Press photo

Here's the very latest style in "hot dogs" and "hot rods." *(See Nutshell column.)*

"Come to Mama!"

"Come, come, come, come, come," said Dr. Konrad Z. Lorenz (*right*) to five ducklings at the Bronx Zoo in New York City. The ducklings, only a few hours old, raised their heads. Then they waddled down the length of a table to the Austrian scientist. He's an expert on how animals behave. Dr. Lorenz imitates fowl calls so well that he can "talk" baby ducks and geese into thinking he's their mother! Some geese in Austria have followed him around until they were two years old.



N. Y. Herald Tribune photo

Big Winds Blew

Nature's highest wind speed can't match man-made winds!

Last month the U. S. Weather Bureau recorded the flight of a weather balloon 20,000 feet over Philadelphia, Pa. Radar instruments "clocked" the wind speed at 392 mph. That's the fastest natural wind speed ever recorded anywhere on earth.

But it's only a sneeze compared with the 11,400-mph-wind whipped up by Princeton University scientists. That's believed to be the fastest *steady* wind speed ever achieved.

The scientists "made" their wind in a wind tunnel. They used helium, not air. Helium, a colorless gas, is the second lightest chemical element. Using special equipment, the scientists compress, or "squeeze," the helium into a container. When released, the helium zips through the tunnel at speeds up to 15 times the speed of sound. (Sound's speed in air is about 764 mph at 32 degrees Fahrenheit.)

"HELIUM WIND"

The "helium wind" blows past small metal objects in the tunnel. The scientists are studying the effect on metals of heat produced by wind friction. This information may be helpful in the building of rocket ships of the future.

Rocket ships would have to fly at tremendous speeds to escape the earth's atmosphere. This is the "envelope" of air which surrounds the earth. The atmosphere's exact height is not known. But scientists believe it extends several hundred miles above the earth's surface.

The Princeton scientists are trying to find out more about metals. They wish to know which metals could best withstand the great heat generated by friction between air and high-speed rockets. These metals probably would be the ones used to build rocket ships.

South Africa controls South West Africa

Troubled South Africa

WHERE'S the biggest zoo in the world? It's Kruger National Park in the Union of South Africa.

It's not like our zoos. In Kruger Park the animals run around loose. It's the people who are in "cages"! The "cages" are their cars.

Along the roads are signs which warn: "Danger from animals. Do not leave your car."

Those signs mean what they say. One man got out of his car to take a picture of elephants drinking in a river by the side of the road. Suddenly one of the great beasts started toward the tourist. The elephant was slowly flapping his wide ears. Just in time the tourist remembered that elephants flap their ears to waft★ the scent of an enemy more clearly to their nostrils just before they charge. Quickly the man turned around and raced for his car. Luckily he'd left the engine running. As he sped away he could hear the elephant pounding after him.

Once all of South Africa was rich in wild animals—zebras, giraffes, buffaloes, hippopotamuses, baboons, and many others. Now nearly all that are left are in a few game preserves like Kruger Park. South Africa's riches today are its great gold and diamond mines, its fertile soil and growing factories. Yet a cloud hangs over the future of this rich land. That is because of trouble among its people.

Five different groups of people live in South Africa. They are: white people of Dutch descent; whites descended from the British; African Negroes; people of mixed white and Asian or Negro blood; and people from India. The whites, who run the country, make up about one fifth of the population.

To understand South Africa's problems, we'll first have to take a look at its history.

Three hundred years South Africa was almost an empty land. A few scattered African tribes live there. In 1652 settlers came from Holland to start a colony near what is now Capetown. These Dutchmen had the place pretty much to themselves until the early 1800s. Then, as the result of a war in Europe, Britain got possession of the Capetown colony.

The Dutchmen didn't want to be ruled by the British. In 1836, more than 5,000 Dutch farmers left their homes near the coast and moved far inland, to the northeast.

Their way led upward onto a great plateau. South Africa is shaped like a saucer turned upside down. Near the coast the land is flat. Then it slopes upward to form a plateau which covers most of the country. This plateau is called the veld.★

The western part of the veld is dry. In many places the land is desert.

Rains sweeping in from the Indian Ocean bring rain to the eastern side of the veld. Here the Dutch farmers, who were called Boers★ (a Dutch word meaning "farmer"), settled. They set up their own governments and passed their own laws.

For a while the Boers were left alone on the veld. But in 1869 diamonds were discovered there—and, in 1886, gold. Thousands of miners and prospectors rushed in. Many were British. They did not get on well with the Boers. One quarrel led to another—and finally in 1899 Great Britain and the Boers went to war. The British won. They took control over all South Africa. In 1910 the British made South Africa an independent country. Descendants of the British and the Boers (now usually called "Afrikaners") live and work side by side. But they are rivals for control of the country.

SOUTH AFRICA AT A GLANCE

Area: 472,494 square miles (three times as big as California).

Population: 12,565,000 total.
Whites: Afrikaners, 1,560,000.
British, 1,040,000.
Non-whites: Negroes, 8,500,000.
Mixed races, 1,100,000.
Asian Indians, 365,000.

Government: The prime minister, chosen from the political party with the most seats in parliament, is the chief official.

Industry: South Africa produces a rapidly increasing amount of manufactured goods, especially iron and steel, chemicals, textiles, machinery.

AFRIKANERS AND BRITISH

There are about twice as many Afrikaners as British. The two groups speak different languages. English is the language of those who are descended from British settlers. The Afrikaners have their own language, Afrikaans,★ which is like Dutch as it was spoken 300 years ago.

Many Afrikaners are farmers, living on the veld. Most of the British people live in big cities. Many of these are mining towns. South Africa is the richest gold and diamond mining country in the world. And recently large amounts of uranium (used to produce atomic energy) were found near the gold mines.

The oldest and biggest gold mines are in a narrow, 70-mile-long stretch of land near Johannesburg *(colored area at top in map p. 7).* Half the country's factories are in this area.

White people own the mines. But they hire African Negroes to do

★ Words defined or pronounced on p. 28.

most of the hard work in mines.

The ancestors of these Negroes were warlike tribesmen who once lived in central Africa. They moved into the veld from the north about the same time that the Boers moved in from the south. In a series of fierce wars, the Boers and British conquered these tribes.

Special reservations have been set up for the tribes. These are similar to our reservations for Indians. The Negroes grow their own crops and keep their own cattle. No white people are allowed to live in the reservations. The tribes on the reservations are very poor. Much of the land is not fertile, or has been worn out.

The Negroes do not have to live on the reservations. A majority of them live outside. Some are servants or farm workers on farms owned by white people. Other Negroes work as laborers in cities and mines.

In the cities, the Negroes live in special areas of their own. These areas are crowded and dirty. The streets are narrow. The houses are old. The Negroes aren't allowed to go to restaurants or movie houses used by white people. They have to use different buses, and different cars in trains. If they want to go after dark into sections where white people live, they have to get special passes.

RACES SEPARATED

Most of the white people in South Africa believe in keeping Negroes and whites apart. But they disagree on how strict the rules should be.

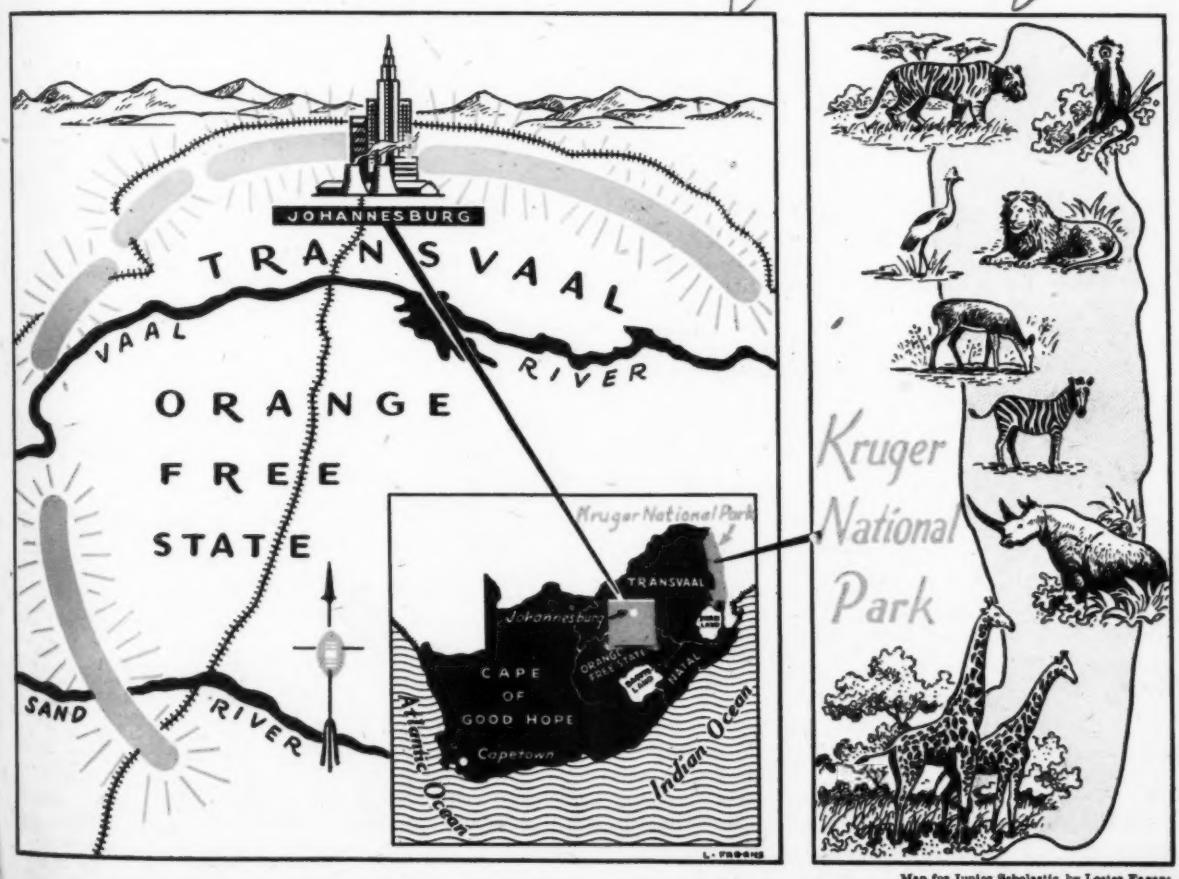
Since 1948 a political party called the Nationalists has run the government. Its members are nearly all Afrikaners. It follows a program known as "apartheid."★ That's an Afrikaans word which means "apartness" or "separation."

Those who believe in "apartheid" want very strict rules to control all the dark-skinned peoples of South Africa. These include the people from India and persons of mixed races as well as the African Negroes. For instance, the Nationalist government plans to move Negroes from the cities to new all-Negro communities outside the cities. The government wants to keep all non-whites from voting for members of parliament. (Only whites can be members of parliament, but at present a few thousand persons of mixed blood can vote in Cape of Good Hope Prov.)

Recently a new prime minister took charge of the government. His name is Johannes Strijdom. He is a firm believer in "apartheid." He has also said that he favors making South Africa an independent republic. It is now a member of the British Commonwealth of Nations, and the Queen of England is also South Africa's queen.

Most of the British people in South Africa belong to the United party. This party favors keeping South Africa in the British Commonwealth. It also opposes many of the "apartheid" ideas of the Nationalists.

Can South Africa settle its quarrels between British and Boer, and between black and white?



Map for Junior Scholastic by Lester Fagans

Colored areas on left map mark main gold mining regions of Union of South Africa. Newest gold fields are at lower left. The square in color on middle map marks area covered by gold fields map at left.

South African Railways

Here's a farm with an unusual "crop"—ostriches! More than 40,000 ostriches are raised on farms in South Africa. Their skins are used to make shoes, luggage, furniture coverings. Ostriches are the biggest of living birds. They can't fly, but with their 25-foot strides they can outrun any horse.

United World Films

South Africa has cowboys, too. Here, one is rounding up cattle on the veld. The "wide-open spaces" of the veld make fine grazing grounds for animals. Sheep are the chief livestock. On the rich plains of the east, 12,000,000 cows are pastured. Hides, butter, and cheese are important exports.

United World Films

BANTU ON THE RESERVATION: South Africans call their Negro tribesmen "Bantus." Sitting by his hut on a reservation, this tribesman wears the warrior dress of his ancestors. About a third of the Bantus live on the reservations.

Girl Guide of South Africa

WORLD FRIENDSHIP SERIES

By GILLIAN STEAD
as told to Sarel Eimerl

IN my town nearly everybody speaks two languages. That's because we are descended from two different peoples. Some are Afrikaners. They are descended from the Dutch and speak Afrikaans at home. The rest of us are of British descent and speak English.

In some schools all the classes are in Afrikaans; in others they're in English; and in still others, some classes are in one language, and some in the other.

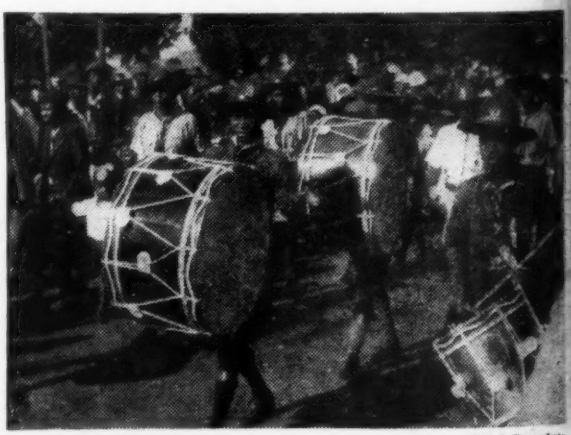
Many of my friends are Afrikaners and they speak their own language most of the time. But my ancestors were English, so my family speaks English at home. My friends and I chat away in both languages.

My family lives in a little village called Eshowe, which is about 20 miles from the coast, in Natal province. My father is a school teacher. We have a one-story house, rather like your ranch-style houses in America. Nearly all houses in South Africa have only one story.

I am 16 and go to school right across the road from my house. Most of the children who go to it are boarders. They live at the school. That's because the people in Natal are so widely scattered. Many children live 50 miles away from the school. So of course they can't go home every day.

Both boys and girls go to my school. We wear special

(Continued on page 28)

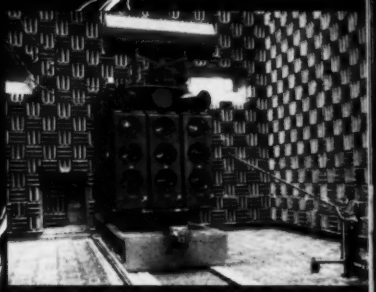


Black Star photo

BANTUS IN THE CITY: Millions of Bantus live in the cities, go to school, and follow Western customs. These boys belong to a Boy Scout band in a town in Cape of Good Hope province. Whites and Bantus have separate Boy Scout troops.

GENERAL ELECTRIC PROGRESS REPORT

HIGHLIGHTS of 1954



Power and Industry P. 3

Better Living P. 6

The Home P. 9

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GENERAL ELECTRIC

Highlights of 1954

DESPITE the tremendous progress made in electrical living since Edison lighted his first practical electric lamp 75 years ago—it is but the beginning.

In the next decade the electrical industry expects to equal, and perhaps even exceed, the progress it has made in the last 75 years. This, in the face of figures that show electric power production doubling every 10 years since 1882, is clear indication of the exciting challenge of the years just ahead.

New discoveries are being made today in all the basic sciences and arts. In the research and engineering laboratories of industry, schools, and government, young men and women are working in such fields as high-temperature metal alloys, ultrasonics, photosynthesis, radioisotopes, electric power from the atom, conversion of solar energy—new materials, methods, and applications that in turn create new products, services, and whole new industries for better, more abundant living for all of us.

At General Electric today 12,000 people are working to develop atomic energy. The future of atomic energy, bright with promise, is still in the making.

The opportunity to be a partner in this age of progress belongs to all of us. It belongs especially to you who are now building your future. Many things, yet undreamed, will take form out of your imagination and skills. The urge for knowing more, doing something better, that marks the American youth, is built on the firm base of learning.

Highlights of 1954 brings you just a few of the year's many developments at General Electric that point up the fact that electrical progress is both exciting and unlimited.

ON THE COVER: Typical of the young men working in the field of Atomic Energy, these two are at the Knolls Atomic Power Laboratory, operated by G.E. for the Atomic Energy Commission. George E. Martin (left) was graduated from Vanderbilt University in 1950 with a degree in Mechanical Engineering, and Lawrence O. Sullivan (right) received a Bachelor of Science degree from Union College in 1948. The increasing application of atomic energy for peacetime uses has created new career opportunities for young men and women interested in that field.

For additional information on atomic developments, see Research section and back page of this insert.

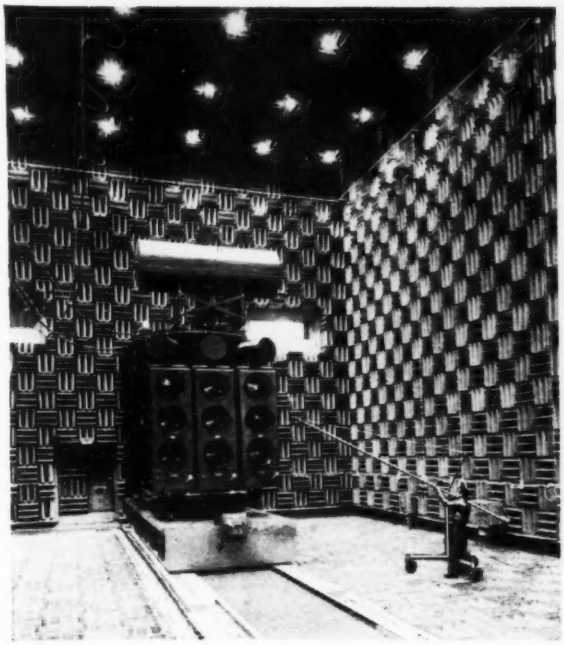
Progress in . . .

POWER AND INDUSTRY

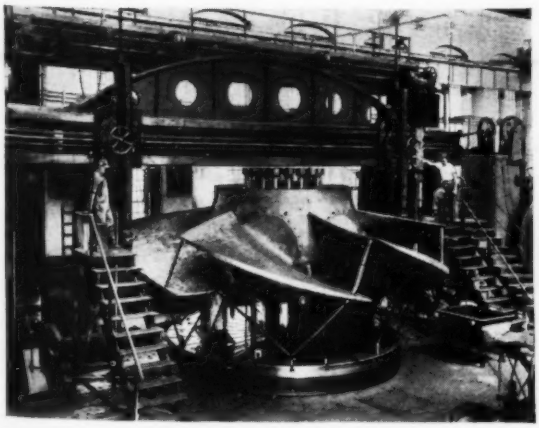
BEHIND America's phenomenal economic growth has been the increasing amount of electrical energy available to each of us.

This power to light, heat, and move machines and men more efficiently has enabled the United States, with 6 per cent of the world's population and 7 per cent of its area (yet possessing 40 per cent of its electric generating capacity) to outproduce the rest of the world combined.

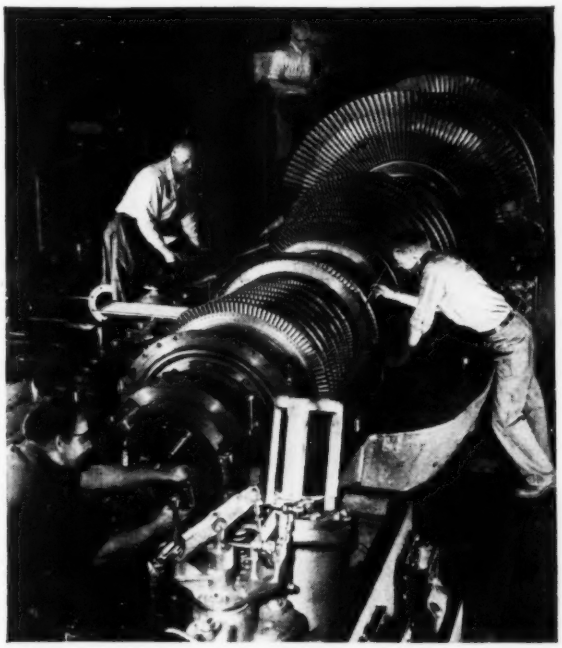
A basis for our nation's wealth are the tools that make the tools—the capital goods whose function it is to produce and distribute other goods and services. They include locomotives, hoists, machine tools, turbines and generators, large and fractional horsepower motors, office machinery and earth-moving machinery. Together, in 1954, their sales amounted to $36 billion—10 per cent of the nation's total product. By 1959 it is estimated the country will have spent *$200 billion* for such capital goods.



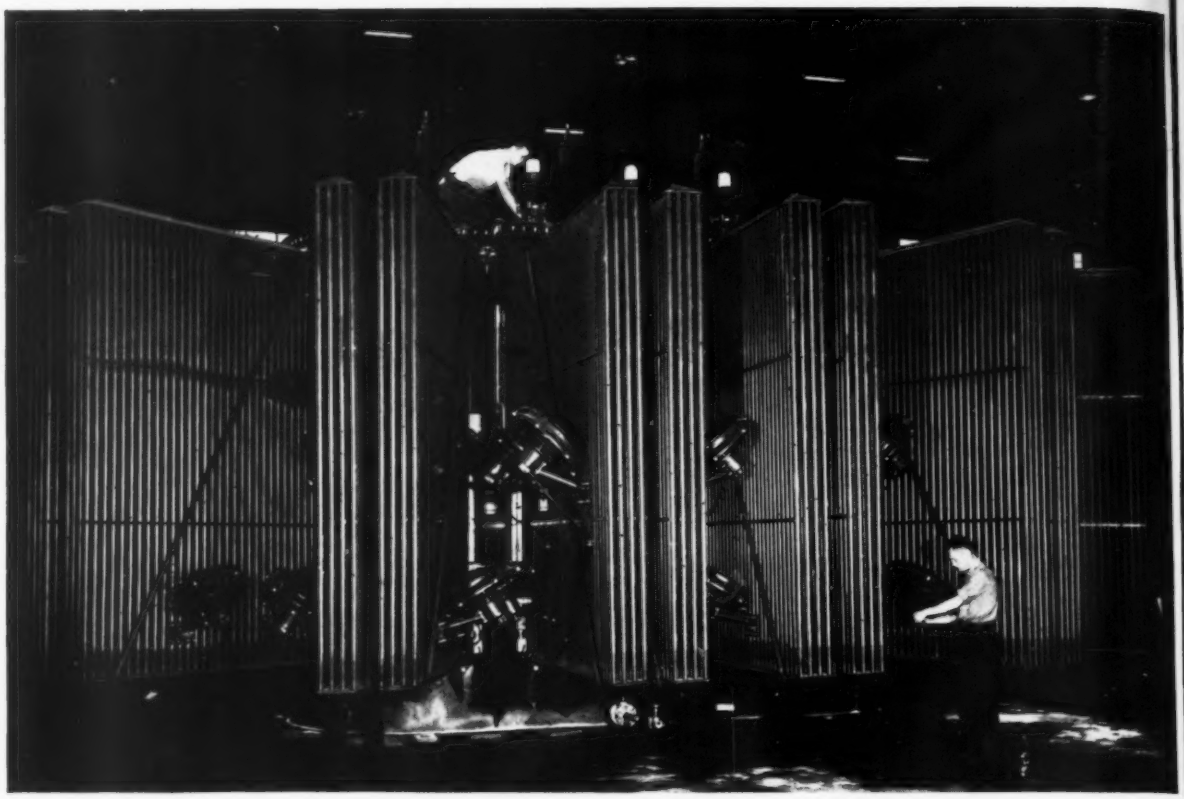
In the world's largest anechoic (echoless) chamber, a large power transformer is sound tested. Because transformer hum can sometimes be a problem in residential areas, General Electric built this "quiet room" at Pittsfield, Massachusetts, so that engineers would have a place where even the smallest improvements in sound characteristics could be detected. 12,000 fiber glass wedges and 5-foot-thick walls absorb sound. Room is lined with enough copper to make 3,250,000 pennies.



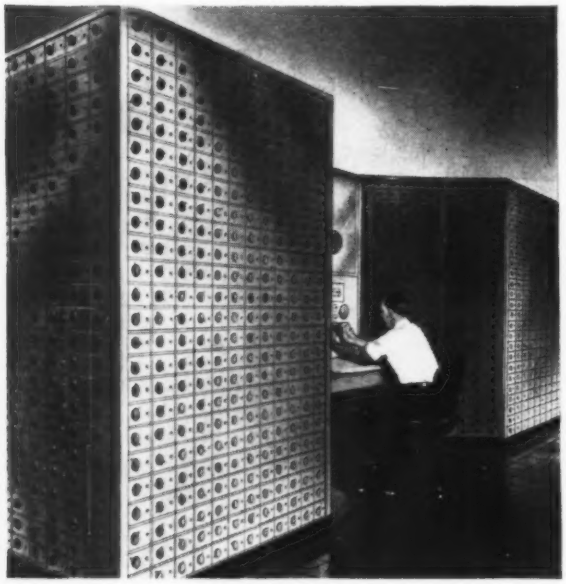
What not long ago took 220 hours can now be accomplished in 65 hours with the aid of cutting tools made of Carboloy cemented carbide, the hardest metal made by man. Here, a tough, 165-ton carbon steel turbine runner has its blade edges trimmed as it moves around on a turntable at 2.1 rpm.



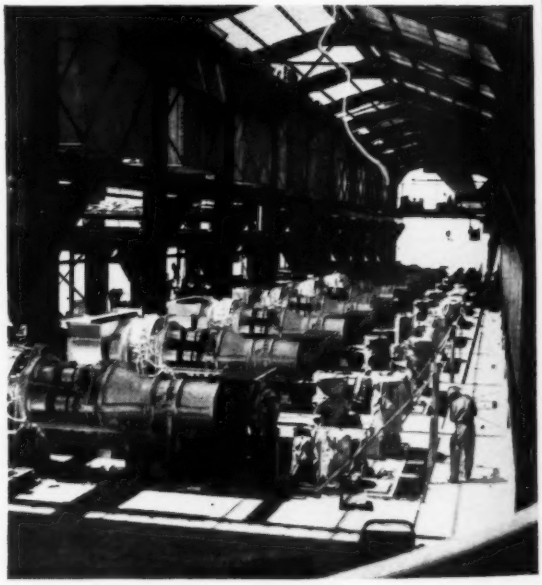
Shown being assembled here for test operation is the turbine of a 125,000 kilowatt turbine-generator. Although the turbine-rotor weighs almost 58,000 pounds, some of its parts are more precisely made than those of a jeweled watch. In 1954, G.E. shipped turbine-generators totaling 6,457,250 kilowatts.



This, the largest self-cooled transformer ever built by General Electric, has the capacity to supply enough electricity for a city of 200,000 people. Fully assembled, it weighs 392,000 pounds. Forty-six high velocity cooling fans increase its output from 84,000 kva to 140,000 kva.



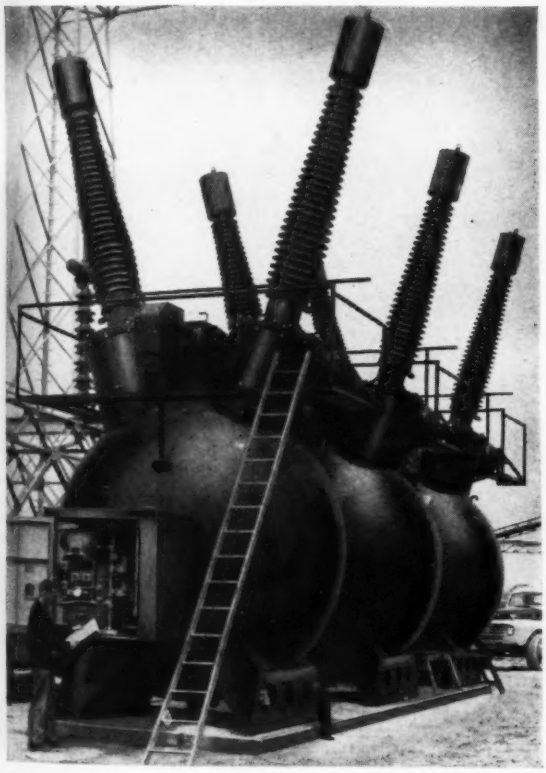
Bristling with dials—1290 of them—this new computer is designed to help a power company determine the most economical means of generating and transmitting the extra power needed during, say, a thunderstorm, when people create an unexpected demand by turning on lights in homes and offices. The computer duplicates the power company's power system mathematically.



These 10 gas turbines, first cousins to aircraft jet engines, are helping to pump oil from under Venezuela's Lake Maracaibo. 60,000 horsepower strong, and mounted on a platform seven miles from the lake's east shore, these gas turbines pump natural gas recovered with the oil, back into the oil field to maintain subterranean pressure and increase the yield of oil.

The "patient" usually goes to the x-ray machine. Not so with the new OX-175, a portable industrial x-ray unit which can be taken right to the job. Only 42 inches long, 10½ inches in diameter, and weighing 185 pounds, the pigmy portable can, as shown here, be taken into relatively tight spaces for the "inside out" inspection of joints and castings and welded seams.

In 1903, General Electric's first steam turbine had a capacity of 500 kilowatts and a speed of 1200 revolutions per minute. This generator core, here being inspected by an armature winder, will help its turbine-generator team develop 100,000 kilowatts. The turbine which drives it will use steam at an initial pressure of 1450 pounds per square inch and an initial steam temperature of 1000 degrees F. It operates at a speed of 3600 revolutions per minute.



In just a 20th of a second, this 83-ton circuit breaker, one of the world's largest, can tame a lightning stroke and, after the danger has passed, switch your power back on again with such speed that household lamps will barely flicker. Sixty of these breakers will be built by General Electric in 1955 to protect power company lines across the nation.

These 3000-horsepower G-E motors make up the main drive of a 44-inch blooming (or rolling) mill which, in 1954, set a new world's record for steel ingot production. In eight hours, it flattened 576 5-ton ingots—54 more than a steam-driven mill which set the old world's record in 1949. So agile is the new electric drive, it can reverse its rolling direction in less than a second.

Progress in . . .

BETTER LIVING

ONE phase in the process of creating demand for the goods and services that keep our nation's economy strong is making or doing something better.

The things that go to make our living standard high and give us more time for pleasure are often evolutionary—small, gradual improvements in quality, or method, or application.

Sometimes it's a chemical ingredient added to a compound that imparts a startling new characteristic; sometimes it's a common substance, like iron, whose crystalline structure is rearranged to make it 100 times stronger and resistant to rust.

New developments that make living more comfortable or add extra convenience are more often the result of long, painstaking study and countless experiments.

The first electric light was weak and undependable. Today, fluorescent lighting on city streets and highways increases visibility and, where visibility is poor, new sealed beam headlamps add to driver and pedestrian safety.

A measure of our progress in better living is the presence of "unseen servants" in the house. Today, American homes have an average of six servants—small electric motors in such things as the refrigerator, vacuum cleaner, washer, furnace, and mixer. Within our lifetime, we may have as many as 23 such servants in our homes, doing such jobs as opening and closing drapes, raising and lowering disappearing attic stairs, and perhaps even operating a retractable roof to cover the terrace in case of rain.

In the 75 years since Edison invented his first practical electric lamp, great progress has been made in lighting development. In 1954, this country's first parkway fluorescent lighting installation was unveiled at Nela Park, in Cleveland, Ohio. Main advantages: more even light on roadway and greater pedestrian safety.

On the world's first commercial moving sidewalk, 10,400 passengers an hour can move between the stations of the Erie Railroad and the Hudson and Manhattan Railroad at Jersey City, N. J. G-E powered, the "speedwalk" conveyor was developed by Goodyear Tire and Rubber Co. and Stephens-Adamson Mfg. Co.

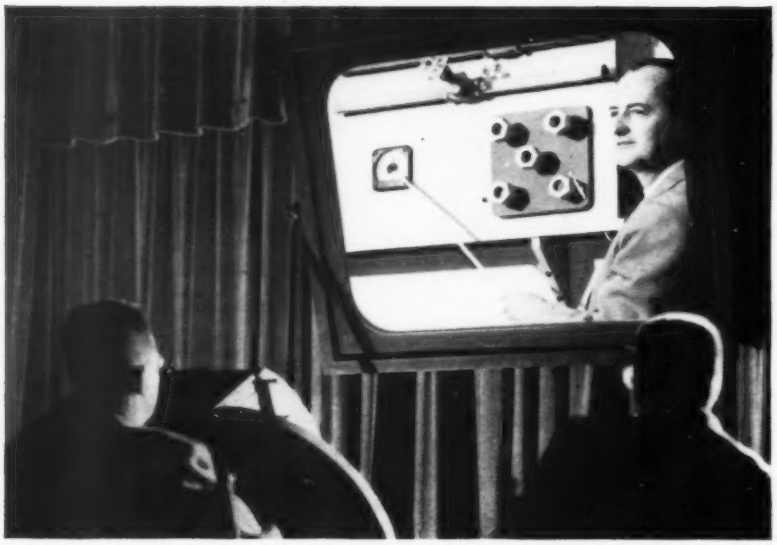
Rain is of little concern to this gentleman, since he's wearing a synthetic-fibre suit treated with new General Electric Dri-Film® water repellent. This silicone product provides a lifetime of protection to most garments. Water forms into droplets on contact, and can be easily shaken off.

X-ray entered the soft drink business in 1954 as a sort of policeman. Soft drink makers, doing an increasing amount of "bottling" in cans, have put G.E.'s Hytafill level-checking x-ray unit to work to make sure the customer gets his full measure. Hytafill can check up to 900 cans a minute and, accurate to the fraction of an inch, reject any "short" ones.

The intent behind this unusual Lo-Boy television receiver design, introduced in 1954, was twofold: to make the set look completely at home with modern furniture; and to allow maximum comfort for the viewer by providing a lower, more natural viewing angle. To make tuning easier, less awkward, the primary sound and picture controls are placed top-side.

A boon to the do-it-yourself home craftsman is a new G-E pressure-contact adhesive, intended for such jobs as bonding new surfaces to kitchen counters. Here, adhesive is applied to the plywood base and the underside of a Textolite® sheet. After 15 minutes of air drying, surfaces may be pressed together for rigid bonding.

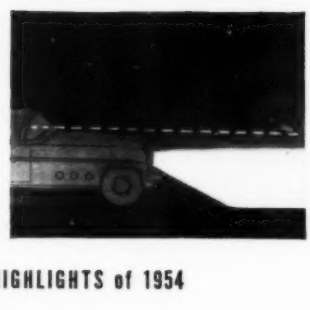
In 1954, G.E. manufactured its 3,000,000th clock-radio. During the year, too, something new was added to the "world's most useful radio"—a calendar. Now, in addition to waking sleepers up to music and controlling appliances, it can tell the date and the day of the week.



The searching eye of the television camera is doing increasingly important jobs outside the field of entertainment. New at G.E. are closed circuit color TV systems for use in education, business, and industry. These systems do not broadcast a picture for home consumption; rather, they "pipe" it by means of coaxial cable or microwave relays to home-type receivers or large screen TV projector. Closed circuit television can be extremely useful in long-distance teaching of manufacturing methods (above), or of surgical skills through the use of a camera installed above the operating table, or even in the making of steel where a check must be made on the exact color of a charge in the blast furnace.

Especially designed to help photographers who want to capture their scenes in full, vibrant color, this new General Electric color control meter is the result of more than 15 years of intensive color research. Invaluable in helping to select the proper color filter, the meter measures the balance of red and blue in natural light.

Lightweight and easy to use, this radiant-heat paint remover does a variety of jobs. Besides removing paints and varnishes, it can be used in laying tile, refinishing furniture, removing ski wax and thawing frozen pipes. The new G-E product consists of a Calrod® heating element mounted on steel runners that keep it a safe and constant distance from the working surface.



New General Electric "All Weather" sealed beam headlamps, designed for safer driving under poor visibility conditions, direct virtually all of their light forward and down as demonstrated above. Reduction of upward light enables the driver to see farther ahead. Besides controlling the light more effectively, the headlamps produce stronger beams than the lamps which they replace. Comparative sketch (left) shows the performance of the old headlamps (top left) and the new ones. Upward "spill" light, which often becomes a curtain through which driver can't see, is greatly reduced in the lower beam of new lamp.

Progress in...

THE HOME

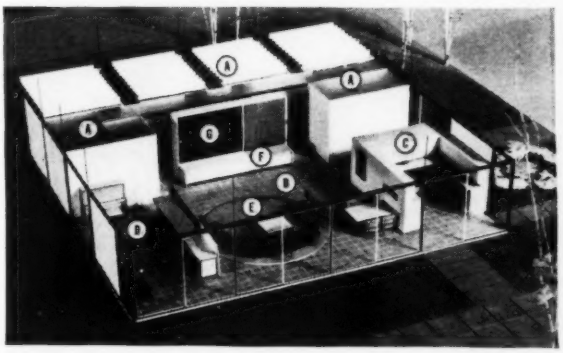
IN 10 years the average home may have as many as 100 electrical "servants" (3 times as many as today) to perform effortlessly the varied functions that add up to the conveniences of electrical living.

Many of the conveniences that assist us electrically today are long-established or accepted services like lighting, heating, cooling. Some keep our food fresh for short or long periods, wash and dry our clothes, dispose of wastes. Others bring the world, audibly and visually, right into our living rooms.

Electrons, the energetic particles that respond instantly to the flick of a switch or push button, are the source of an ever-increasing group of goods and services that make electrical living better and easier for all of us.

Helping to increase the electric power each of us commands, General Electric in 1954 shipped turbine-generator capacity totaling more than 6 million kilowatts—enough to supply all electric power needs for *50 cities the size of Louisville, Ky.*

Planned for comfortable living in 1964, this prefabricated, all-electric home will have self-supporting plastics roof and floor panels. Surrounded by double-thick floor-to-ceiling windows, the home was designed by architect Eliot Noyes and G-E engineers and will offer new conveniences powered by electricity.

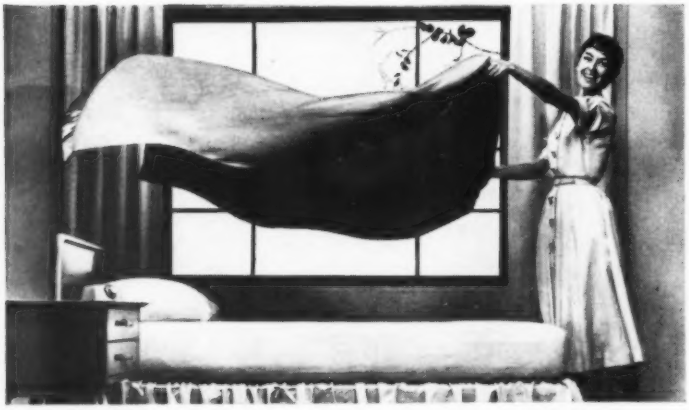


Floor plan of the "Wonder Home" shows arrangement of bedroom-bath area (A) living room (B) kitchen (C) and activities area (D). Living circle (E) will rotate electrically to face entertainment center (F). Large color-TV screen (G) will hang on wall like a picture. Cabinets house video and audio tape recorders.

Hugh Stubbins, Architect

Incorporating more than 50 General Electric products, the G-E all-electric family home (above) dramatizes the growing use of electricity in modern living. The prefabricated home features a remote control wiring system with a master switch. G-E products include a wide variety of appliances, lamps, clocks and a year-round air conditioning system. The completely light-conditioned living room (above rt.) has fluorescent cornice lights and six co-ordinated lamps, all controlled by one switch. Highlighting the family room (rt.) is an electric train set that folds easily and compactly into the wall following use.

This wall-mounted refrigerator represents the first radical design change in refrigerators in many years. The unit is 64 inches wide, 39½ inches high and 17½ inches deep. It has an 8.8-cubic-foot refrigerator capacity and enough freezer room to hold 73 pounds of frozen food. No handles protrude, and the doors stay closed magnetically. It comes in colors that either match or complement the color schemes of modern home kitchens.



This new automatic cotton covering maintains comfortable temperature during chilly nights. Designed from a lightweight fabric for year-round use, it has custom-contoured corners to provide ample foot room. In severe weather it can combine with a regular blanket, in effect making any blanket an electric blanket.

New General Electric window fan with powerful 20-inch blade is designed to cool as many as five rooms. Thermostatic control turns fan on and off automatically according to temperature changes.

This electric Kitchen Unit combines several major appliances into one compact eight-and-a-half foot expanse of brilliant color. Appliances include a combination washer-dryer for clothes, an electric sink with dishwasher and Disposall®, and an electric range. The plumbing of all appliances is interconnected at the factory so that the entire unit can be installed as conveniently as a double-bowl sink. Prewired, the new Kitchen Unit requires only one electric connection and is equipped with six electric outlets.

A completely automatic, compact portable dishwasher, the "Mobile Maid" saves not only costly installation, but steps and space as well. Designed for easy top-loading to eliminate stooping, it has no heavy racks to lift or slide out, and glides from kitchen to dining area with ease.

New in 1954 was this ceramic wall clock. Four decorator colors, each speckled with variations of one hue by a completely new process, and the soft contours of this new clock make it an attractive addition to any room in the modern American home. Different colors are achieved by applying a slip of colored clay on top of a white clay. The clays are then fired together.

This portable steam iron, weighing only 27 ounces when filled with water, can work on either alternating or direct current. It uses a detachable rubber bulb as a water container, supplying enough steam for 17 minutes of continuous ironing. Without the bulb, the iron becomes a fully automatic dry iron.

The most compact home laundry unit ever produced, a new G-E combination washer-dryer can be installed either in the wall or under kitchen counter tops. Featuring a new control system, built-in water heater, and other G-E time-saving devices, the combination is also available in a free-standing model.

Especially designed for easy pouring, this new automatic coffee maker allows one to pour the first four cups without lifting it from the table. It can brew from two to nine cups to any desired strength and reheats without percolating. No-drip spout eliminates soiling tablecloths and extra-wide opening allows easy, thorough cleaning.

Progress in . . .

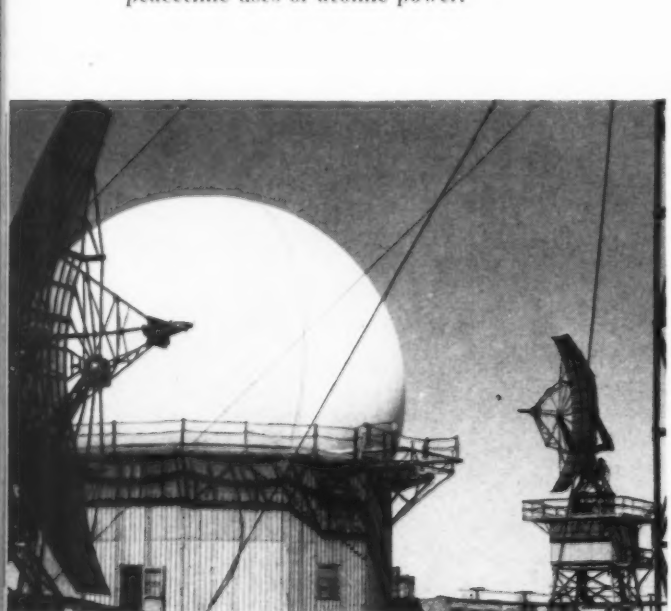
DEFENSE

IN maintaining our role as a responsible nation among the countries of the free world, we of the United States cannot rely upon mere mass of manpower and materials as can our adversaries. Instead, we look to the calculated result of free scientists and engineers, who, working in a free country, contribute toward the development of advanced machines and technological processes.

General Electric is proud of the part that it plays in our country's defense and of the major developments for which it has been responsible in 1954; the world's most powerful airborne search radar, the propulsion unit for the *Saratoga*, when launched, the most powerful ship afloat. The Company looks back over the years at past developments, in themselves milestones in national defense.

But more important, General Electric works with anticipation toward the future, when it will contribute even more to our country's applications of peacetime uses of atomic power.

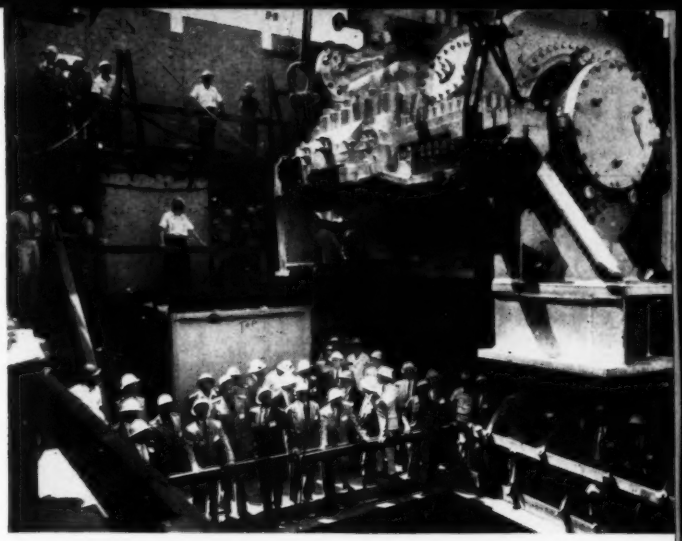
Especially adapted for high-speed jet aircraft, this new remote-controlled tail turret is capable of destroying enemy interceptors in all weather conditions. Switched to "search," radar screen picks up enemy interceptor, tracks automatically and gives computer necessary information. As target gets in range, gun is fired.



Designed to detect enemy aircraft or missiles three times as far away as previous units, G.E. and the Air Force have developed new height-finder radar that concentrates its beam like a searchlight. Unit, left, is mobile. Radome structure, center, houses radar in Arctic climate. Fixed installation, right, is for temperate areas.

A problem facing designers of jet engine tailpipes is the choice of metals strong enough to withstand the extreme exhaust heat from the combustion chamber. Vacuum melting furnaces like this one can produce jet engine alloys capable of withstanding higher temperatures than any wrought alloy now in production.

This flying radar station, with two tons of electronic equipment zippered into blister-like Radomes atop and below its fuselage, carries the world's most powerful airborne search radar. High-altitude planes with this system, twice as powerful as previous units, can search the upper air to provide early warning of sneak enemy air attacks.



A huge turbine is lowered into the aircraft carrier "Saratoga." Newly designed marine propulsion equipment built by General Electric will make the "Saratoga" the most powerful ship afloat when it is completed in 1956. On the same amount of fuel it will travel much farther than it could with World War II type equipment.

This weird looking merry-go-round rising over the California desert isn't a displaced piece of equipment from a touring carnival. Powered by a 2800-hp G-E motor, this tower can produce speeds up to 500 miles an hour, and is used to study the effect of centrifugal force on parachutes of pilots who bail out of crippled jet aircraft. Picture below shows airmen adjusting the gondola housing a parachute-equipped dummy.

Experimental civil defense radio developed by G-E engineers can be worn like a hearing aid and is powered by two tiny batteries like those in a pen-size flashlight. Long battery life (more than a month) is accomplished through use of germanium devices, like this transistor, which require less power than conventional radio tubes.

Streaking across the night sky, this Air Force F-86D fighter-interceptor is powered by a General Electric J47-17 turbojet engine with afterburner. Called a "blowtorch with a brain," the afterburner injects extra fuel in the aft section, giving an increase in power for quick climbs to high altitudes.

Progress in...

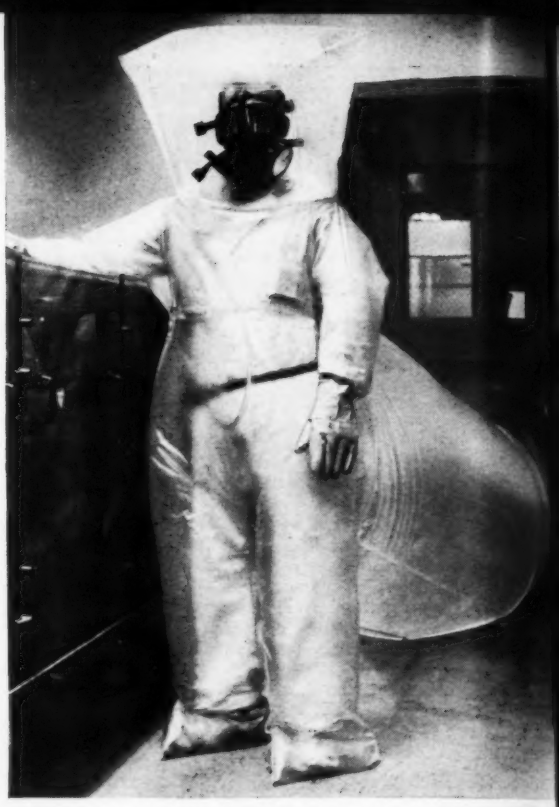
RESEARCH

THOUSANDS of people, perhaps even you, may be working just 10 years from now with a product or service that today does not exist. That's one result of research, for research creates jobs and the opportunity for jobs.

The automobiles, refrigerators, television, metals, material, and methods of 10 years ago are not good enough by today's standards. That's another result of research, for improvements keep our industry strong and growing.

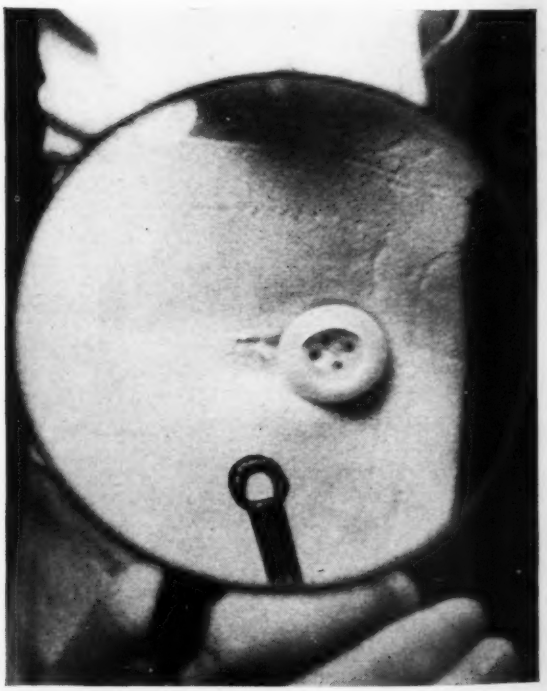
Industrial research is an investment in both our personal and in our country's future. It is the first step in the process between creation of goods and services and their ultimate use. It thrives best in a free society, where imagination is boundless and people seek truths freely.

In such a climate, vision and manipulation—in all their countless forms—combine to move science, art, industry, and men up and over the barriers of today and into new challenges of tomorrow.



Atomic workers at the AEC Hanford operation are protected from contamination in radioactive areas by a plastics suit with a built-in plastics access tunnel, developed by G-E engineers.

A ¼-pound ingot of germanium, upper left, produced in two hours by G-E "rate grown" process can be diced into tiny bars, lower left, to make 2000 transistors like the one magnified, right. These transistors perform many functions of the electron tube.



This tiny reactor, smaller than a shirt button, is made of copper wire wound around highly sensitive magnetic material. It can amplify signals so feeble that the temperature of an air conditioner can be controlled by the heat of a lighted cigarette.

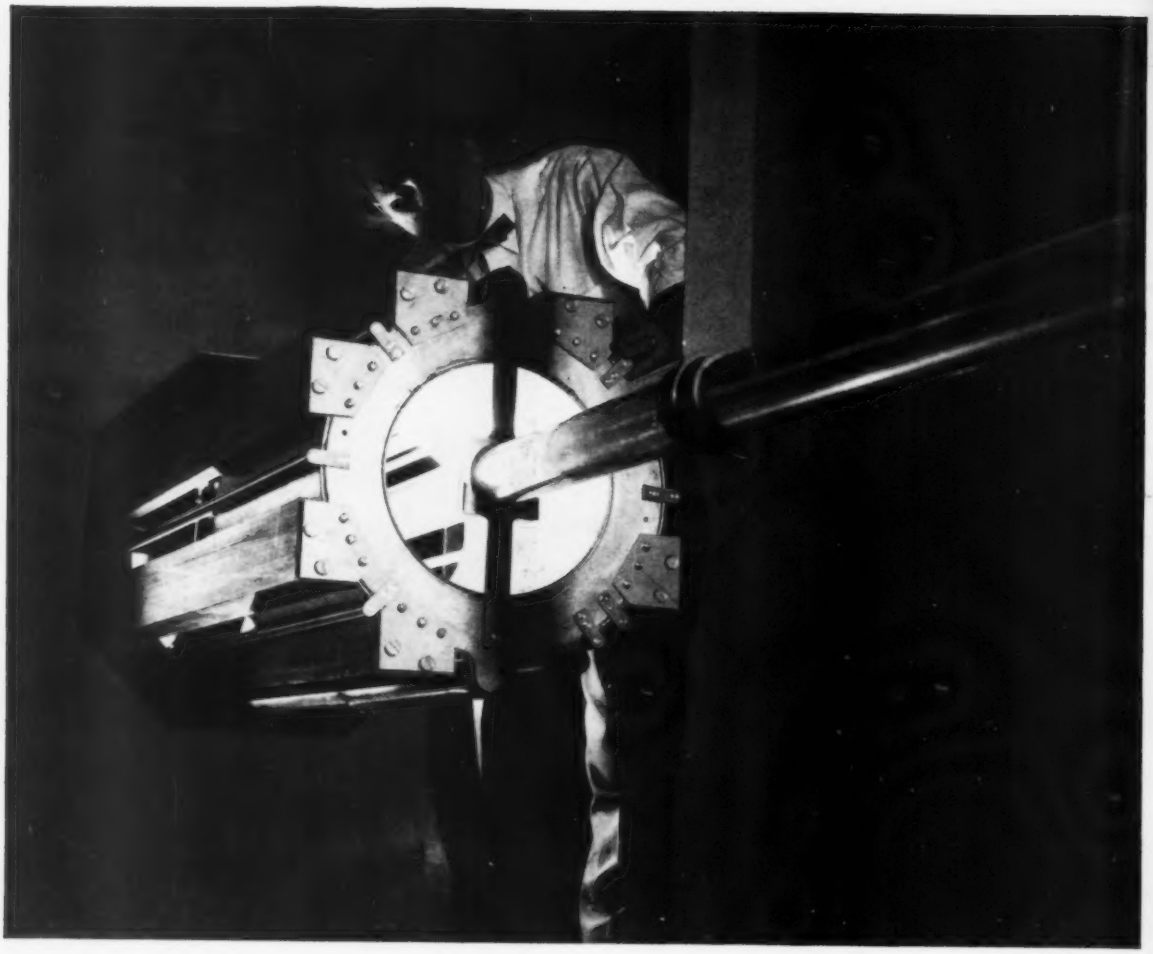
These two prints from the same negative demonstrate the effectiveness of a silicone-based liquid called Refractasil developed by the G-E Research Laboratory. Containing the right combination of physical and optical properties, Refractasil removes blemishes caused by normal film scratches, dust and fingermarks.

This young man's "space gun" is a new radiation instrument called "Alpha Poppy," developed by General Electric to detect the presence of alpha radioactivity by warning "pops."

G-E engineers effected a radical change in the appearance and performance of dental x-ray apparatus during 1954. New units, operating at up to 90,000 volts, will not only reduce distortion but will offer greater detail and diagnostic value on a single film.

The home TV screen a few years from now may be thin enough to hang like a picture on the wall or be mounted in an easel-type table model as a result of new developments in electronics.

Blowing soap bubbles is no longer exclusively child's play. Scientists at General Electric's Research Laboratory have discovered that the growth of soap bubbles simulates the growth of crystals in metals. Two such "bubble cells" are shown above.



You are looking at the "business end" of General Electric's new low power atomic reactor which will be available, subject to any applicable AEC regulation, on the commercial market. This new, low cost reactor was built by General Electric Company's General Engineering Laboratory based on a design developed in the AEC's Knolls Atomic Power Laboratory. It will be used as a research and educational tool for industry, research laboratories and universities. The sale and use of these reactors are governed by the Atomic Energy Act of 1954.

"GENERAL ELECTRIC feels that the time has arrived when we can look toward definite goals in the area of commercial atomic power—goals that can be achieved, and will be achieved, and that almost inevitably will lead to expansion into a power age of great proportions with resultant benefits in human well-being."

FRANCIS K. MCCUNE

Vice President and General Manager, Atomic Products Division

Progress Is Our Most Important Product

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This annual progress report, to students and their teachers, was prepared by Public Relations, General Electric Company, Schenectady, New York.

PRG-60

FRANCIE'S SCHOOLMATES OVERSEAS:

Spain

No. 2 in a series in which Frances Huffman, 13, of Massillon, Ohio, tells about attending school in a dozen European countries last spring.

"Americanrita"

Two Spanish schoolgirls watch Francie write in her diary.

WHEN I visited the Lope de Vega public school in Madrid, the girls were so curious to see an American that they nearly smothered me. Daddy had to fight our way through to the principal's office.

I went to three classes. The first was a poetry class. The teacher was a short man with a big moustache and a green corduroy sports jacket. He stomped up and down the aisles, pointing and shouting commands. When a girl stood up to recite, it was so quiet you could have heard a pin drop.

But in French class the girls made so much noise that I could hardly hear myself think. At the end of the period, the teacher played French songs on a phonograph so loudly that it even drowned out the noise the students made!

Between classes the noise was terrific also. No one seemed to mind. A woman sat at a desk in the hall and seemed to be a kind of monitor. But she was busy doing some sewing, and looked up only when the confusion became especially noisy.

The third class I visited was in biology. The teacher showed a glass cage that contained mosquitoes. Then he explained the mosquitoes' flight with graceful movements of his hands. The girls listened as if they were spellbound, and no one said a word.

The school is modern, but not too well kept. There was no heat in the classroom radiators, and it was so cold that many of the girls kept their coats on. They seemed to have no playground equipment except for some brightly colored rubber balls which they used for gym exercises. They did their gym work in a small court paved with tiles.

Francie takes charge of a poetry class. A school official sits beside her.

HIGH SPIRITS AND HARD WORK

But what the girls lacked in equipment, they made up in spirit and hard work. I met several brilliant students who have won scholarships to study in the U. S.

The girls told me that my name, in Spanish, would be Francisca Isabel Hufman. But they called me "Americanrita," meaning "little American senorita."

I loved the Spanish people because they were so warm-hearted and friendly. One evening six of the girls from the school walked all the way to my hotel to visit me—nine miles!

SPORTS

"The Big Cat"

LOOKING for a scrap? Just walk up to any U. of Santa Clara fan and say that Kenny Sears isn't the greatest basketball player in the world. You'll never know what hit you.

Santa Clara takes its hooks and dribbles very seriously, and Kenny is its pride and joy. Rightly so, too. "The Big Cat" is a 6-9 package of talent. Tremendously fast and agile, he owns every shot in the book and goes up for those rebounds like a giraffe with springs in his sneakers.

Thanks to Mr. Sears, the Broncos have made the NCAA tournament three years in a row. If they make it this year, Kenny will probably become the first player in history to play in four straight championship tourneys.

This isn't the only honor that "The Big Cat" has chalked up over the past three years. Feast your eyes on these:

1. Has been picked on the NCAA Western Regional Tournament team three years in a row.

2. Has been chosen the "most valuable player" in the California Basketball Association Conference for two straight years.

3. Was voted the "most valuable player" in Northern California last season.

4. Made the Helms Foundation All-American team in 1953.

5. Voted the "outstanding player" in the Hawaii Invitational Tournament for two seasons running.

No wonder his coach, Bob Ferrick—a former All-American himself—says, "Kenny is the finest all-around college player I've ever seen. Imagine a 6-9 player who can play both forward and center, lead fast breaks, and outrebound any human being on earth!"

Sure, Coach Ferrick is a bit prejudiced. Or maybe he's never seen fellows like Tom Gola, Don Schlundt, and Dick Hemric. But Kenny IS a terrific ball player.

A graduate of Watsonville (Calif.) Union H. S., Sears has two ambitions in life—to play pro basketball and then go into coaching. His "favorites" include: *actor*, Burt Lancaster; *actress*, Audrey Hepburn; *singer*, Doris Day; *band*, Les Brown; *school subject*, history; *hobbies*, fishing and hunting.

His biggest sports thrill was playing in the 1952 NCAA Regional Tourney.

—HERMAN L. MASIN, *Sports Editor*

Junior Writers

This essay on "What Christmas Means to Me," by Linda Kent, Sarasota Junior High School, Sarasota, Florida, won the first prize of $100 cash and a Royal Gold Portable typewriter in the Royal Portable Typewriter Contest. The contest, announced in *Junior Scholastic* last fall, closed November 12, 1954.

Christmas is a happy time. It is the birthday of Christ and all birthdays are happy, especially this one which everyone celebrates.

As Christmas draws near, people seem to change. There is excitement in the air, laughter and friendliness, and strangers are not strangers when, loaded with packages, they bump into each other, yet smile and exchange a word or two. At no other time of year do you find this hustle and bustle—all good natured and exciting.

Christmas Eve has a magic all its own. There is no other night so still, a sort of waiting for something. In the distance there is carolling and even though the voices are young and not quite in tune, the air changes them into a lovely sound, mysterious because there is only the music and you can see no one.

Then all is quiet and it is hard to sleep, thinking of tomorrow. I know there is a tree downstairs, trimmed with colored glass balls and silver tinsel, but sparkling when its lights are turned on, transformed into a symbol and no longer just a tree. Under the tree are boxes and packages, all sizes, shapes and colors. It seems as though morning will never come. When I was small, I used to lie in bed and not move, afraid that if Santa Claus came and found me awake, he would pass by and there would be nothing there for me under the tree.

Morning does come, however, and I did sleep, but that first minute when I wake up, I know there is something about today not like any other. What is it? Oh yes, it's Christmas! Now I'm wide awake and it's time everyone gets up too. A loud "Merry Christmas" does it and nobody cares about being waked up so noisily, for this is Christmas morning. It is the happiest day of the year, a birthday filled with gifts from and to friends and families, given in love and happiness in remembrance of the birthday of Christ.

Right This Way

A boy from Post Intermediate, Detroit, Mich., asks:

How should a boy introduce himself to a girl he's never met before?

Whether it's in the hall between classes, at a party, or in the local soda hang-out, the straightforward approach is the right one. DON'T say, "Haven't I seen you somewhere before?" or "Say, good-looking, what's your name?" You'd deserve—and get—an icy stare for both those openers.

Instead say, "Hello. I'm Paul Keller. What's your name?" You might add, "You're new at Central, aren't you?" if you have a sneaking suspicion she is. More important than *what* you say is your smile—and *how* you say it.

A tip on meeting people: It's up to the girl whether or not the two of you shake hands or merely smile and nod. Follow her lead. If her right hand pops out to meet yours, be sure that your handshake is a friendly, firm one.

A boy from Denver, Col., writes:

Should a boy help his date in boarding a bus or trolley? In getting off, who leaves the bus first?

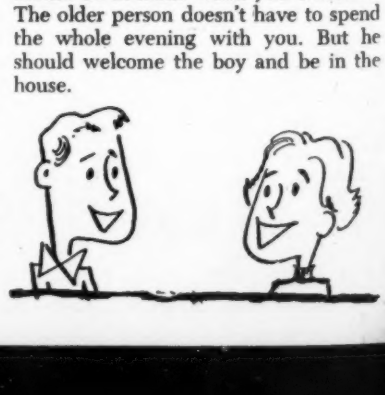
In boarding a bus, you help—not *heave*—her up the steps. Sit down if there are vacant seats. But don't forget to offer your seat to a woman, an older man, or anyone laden with packages or accompanied by a small child. Courtesy counts—even when it isn't directed at your date.

In leaving, you get off the bus first, to keep your date from stepping in a mud-puddle or missing the curb. Don't *pull* her off—just give her a helping hand, please.

A girl from Chelsea Jr. H.S., Atlantic City, N.J., asks:

Is it proper to entertain a boy at home when your parents aren't there?

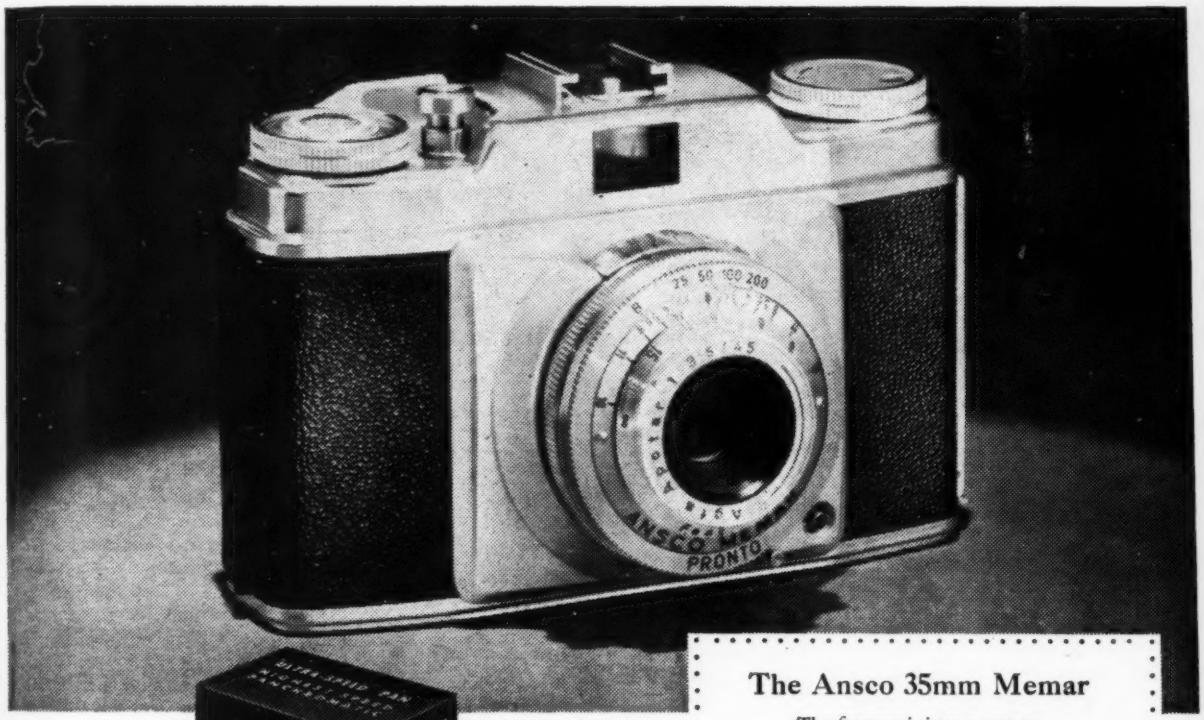
No, it's not. Your mother, father, or some older member of your family should be at home when you entertain. The older person doesn't have to spend the whole evening with you. But he should welcome the boy and be in the house.



Shutterbug's Page

EDITED BY KEN JOHNSON

It's easier to get better pictures with this unbeatable Ansco team!



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"From Research to Reality."

STARRED ★ WORDS

Words starred (★) in this issue are defined and pronounced here.

cricket (CRICK-eht). Noun. A summer game played mainly in countries of the British Commonwealth. As in baseball, the object is to score runs by hitting a ball with a wooden bat.

rugby (RUG-bee). Noun. A game similar to American football. The object is to get a leather ball over the other team's goal line. The ball may be kicked, carried, or thrown.

waft (WAFT; *a* as in "ask.") Verb. Make something float through the air.

HOW TO PRONOUNCE

Afrikaans (af-rihk-ANS; first *a* as in "at"; second *a* as in "arm").

apartheid (ap-ar-TIGHT; first *a* as in "at"; second *a* as in "arm").

Boer (Rhymes with "door").

braaivleis (BRAHV-lice).

veld (Rhymes with "felt").

volkspele (volk-SPEE-luh; *o* as in "odd").

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WORDS TO THE WISE

WHAT'S IN A WORD?

precipice. If you've ever been in the mountains, you've probably seen a *precipice*. A *precipice* is a very steep place—a cliff. It is a place to beware of, as its name indicates. For originally the word *precipice* meant "a place from which you might fall *head*-first."

Precipice comes from the Latin *praecipito*, meaning "to fall headlong" or "to cast down." *Praecipito* itself came from two other Latin words *prae* ("in front") and *caput* ("head").

The first place ever to be called a *precipice* was in Rome. This was the Tarpeian Rock, where criminals used to be executed. The rock was named *precipice* because the criminals were killed by being flung down head first from the top.

It's Your Move

Caput appears in several other English words. Some of them are in the list below. Write in the blank space before each word in *Column I* the number of the correct definition from *Column II*:

Column I

___a. captain
___b. capital
___c. chapter
___d. capitulate
___e. cape

Column II

1. part of a book
2. a point of land jutting out into the water
3. leader, a commissioned officer in the army
4. surrender
5. seat of government, or an important center

Girl Guide

(Continued from page 8)

school uniforms. The girls wear dark green cotton dresses with white collars and cuffs. We also wear green blazers, with our school crest on the pocket. Boys wear gray flannel trousers and green blazers.

Because South Africa is in the southern hemisphere, we have winter when you have summer. Our school year begins in January and lasts till November. Classes start at eight every morning and run till 12:15. After that we play games, such as field hockey in winter and tennis in summer. The boys play rugby★ in winter. In summer they play cricket★.

We spend a lot of time in the open air. We have very hot summers and mild winters. Swimming is a popular sport. Our beaches are beautiful. You can walk out for a mile from the shore before the water becomes too deep, and then come in on the surf.

In the evenings I usually read or do my homework. Sometimes I go to a *braaivleis*★. That's a party, usually held in the garden of a house. All the children bring their own food and cook it over an open coal fire. After we've finished eating, we have a *volkspele*★. That's a kind of folk dancing, rather like your square dancing. For the *volkspele*, the girls wear beautiful wide skirts and the boys sometimes wear moleskin jackets. Somebody plays an accordion or a banjo and the rest of us sing the folk songs as we dance. We learn the words in music class in school.

In South Africa boys and girls don't go on as many dates as you do. Usually boys and girls don't start dating until they're about 16. Girls don't wear makeup until they're 14, and they don't wear high heels until they're 16.

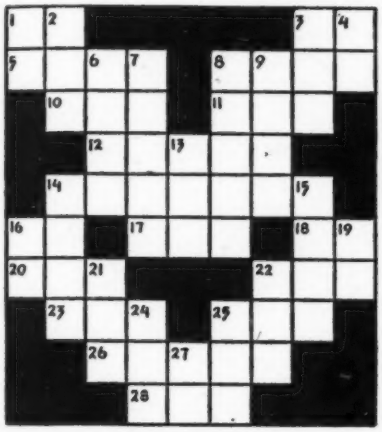
Even without dating, we have lots of fun. Instead of doing things in pairs, we do them in groups. For instance, there are both girls and boys at a *braaivleis* or a swimming party and, of course, at dances. But we don't pair off. We don't even have any word for "date." I never heard the word until I visited the U. S. recently. I was one of a group of South African Girl Guides (that's our name for Girl Scouts) who came over at the invitation of the Girl Scouts of America. I traveled around much of New England.

If you would like to write to me, my address is: Gillian Stead, Main St., Eshowe, Natal, Union of South Africa.

★Word defined or pronounced on this page.

PRESIDENTIAL QUIZ-WORD

This President, who was in office during the War Between the States, was born on Feb. 12, 1809. Definitions marked by star (*) tell you more about him.



ACROSS

* 1. This President spoke of "government – – the people, by the people, for the people."
3. Not out.
5. Unable to hear.
* 8. In his youth he is supposed to have been in love with – – – – Rutledge.
10. East Northeast (*abbrev.*).
11. Long, thin piece of wood.
12. To exchange goods for money.
*14. Abraham – – – – – – – –, the sixteenth President of the United States.
16. 3.1416.
17. Abbreviation for "strings" on a musical score.
18. Popular term meaning "all right."
*20. He worked as a postmaster while he studied – – –.
22. Some.
*23. He was the Presidential candidate of this party (*abbrev.*) in 1860.
25. South Southeast (*abbrev.*).
*26 He was assassinated by John Wilkes – – – –.
28. Attempt.

DOWN

1. On demand (*abbrev.*).
2. Money charged for a service.
* 3. He lived in this state (*abbrev.*) before settling in Illinois.
4. Northeast (*abbrev.*).
6. Prefix meaning "against."
7. Flowerless plants with broad leaves.
8. Eager feeling or desire. (Rhymes with "harder.")
9. French word for "Christmas."
*13. He opposed the passage of the Kansas-Nebraska – – – (1854).
14. One who tells untruths.
15. Not any.
16. Plural (*abbrev.*).
*19. He was born in this state (*abbrev.*).
21. What a spider spins.
22. It's left over after a fire.
24. You use it to cook in.
25. Where pigs live.
27. Either.

Answers this week in Teacher's Guide; next week in your edition.

Answers to Feb. 2 Quiz-word Puzzle

ACROSS: 1-ran; 4-son; 7-Rita; 8-Whig; 10-avert; 12-one; 13-N.E.; 14-rot; 16-T.M.; 17-tri; 19-eth; 21-is; 22-Co.; 23-moo; 24-U.M.T.; 26-go; 27-nom; 29-yr.; 31-and; 33-psalm; 35-stir; 37-eyes; 38-hen; 39-her.

DOWN: 1-rivet; 2-ate; 3-Harrison; 4-S.W.; 5-oho; 6-ninth; 7-ran; 9-gem; 11-to; 15-Tecumseh; 18-Rio; 20-tom; 23-month; 25-Tyler; 26-gas; 28-op.; 30-rms.; 32-die; 34-aye; 36-R.N.

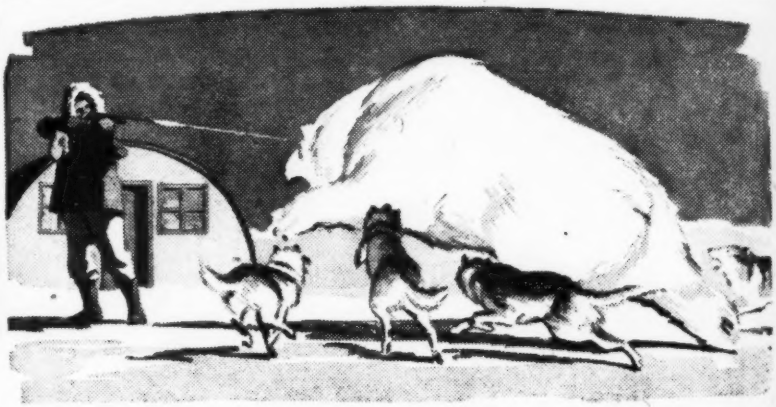
Disappearing Act

Naomi: "What kind of beverage do ghosts like best?"

Carol: "Evaporated milk."

Noami Hammond, Central Jr. H. S., Kansas City, Mo.

Tele-facts

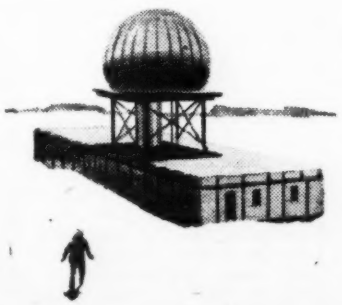


Battle of the North

Paul Southwell was a member of a Bell Telephone System team of technicians hand-picked to build radar stations for the Air Force in Alaska.

One day he drove up to camp with a group of newcomers in the back of his truck. Suddenly he saw a gigantic shape near the cabins.

"Polar bear!" Paul shouted to the others. "Get down here into the cab, quick!"



Then he ran to his hut, grabbed a rifle and went out to face the charging beast. The first shot brought the bear down. It took three more to kill him.

These were not ordinary men who built the northern radar "lookouts" like the one pictured below. They had to be skilled in assembling complicated electronic equipment. And they had to have the strength and courage to live for long periods in the Alaskan wilds.

This was an unusual assignment, of course. But it shows how the men of the Bell System are ready to tackle any job—from giving you better telephone service to helping keep our country safe from air attack.

BELL TELEPHONE SYSTEM

SOME FUN!

Power of Speech

An Indian was smoke-signalling a love message to his girl friend, when suddenly a mushroom cloud from an atomic bomb explosion covered the sky with smoke for miles around. The Indian stared in amazement, then muttered enviously, "Gee, I wish I'd said that."

Anne Wyatt, Northwestern School, Natchitoches, La.

The Reason Why

Father: "I can't understand why my watch won't run any more."

Mother: "Maybe it needs a cleaning, dear."

Small son: "Oh, no, it couldn't. Only this morning I had it in the bathtub with me."

Sandy Frederick, Grady School, Houston, Tex.

Thrifty Soul

Bandit: "Your money or your life!"

Man: "Take my life. I'm saving my money for my old age."

Mary Davis, Ben Milam School, Houston, Tex.

New Kind of Dessert

"What kind of pie you got?" asked the man in the restaurant.

"Abble and cherry," replied the husky-voiced waitress.

"You got laryngitis?"

"No, dust abble and cherry."

Dale Faughn, Route #1, Brookport, Ill.

Refresher Courses

A hunter in Africa was on his way back to camp one night when a big lion came out of the jungle about 20 feet away. As the lion was about to spring, the hunter fired his last shot and missed. The lion sprang too far and landed 15 feet behind the hunter, who then made it safely back to camp.

The next day the hunter went to the edge of the camp to practice shooting at close range. He heard a strange noise in the brush and investigated. It was the lion—practicing short leaps.

Jerry Kaufman, P. S. 253, Brooklyn, N. Y.

Too Much Cleanliness

Mrs. Smith: "This spinach tastes strange. Are you sure you washed it carefully?"

Cook: "Sure, Madam, I even used soap."

Betty Jean Elliott, Wicomico H. S., Salisbury, Md.

Horsing Around

Teacher: "James, what is the opposite of misery?"

James: "Happiness."

Teacher: "What is the opposite of sadness?"

James: "Gladness."

Teacher: "Now, give the opposite of woe."

James: "Giddap."

Doyle H. McMullan, Decatur (Miss.) School

Stop, Thief!

Papa Kangaroo: "Why, Bella, where's the baby?"

Mama Kangaroo: "Oh, my goodness, my pocket's been picked!"

Loyberta Allen, Lawson School, Chicago, Ill.

Good Reason

"Stop!" cried the man in the barber chair. "Why do you insist on telling me these horrible bloodcurdling stories?"

"I'm sorry, sir," said the barber, "but then your hair stands on end and it's much easier to cut."

Catherine Moran, Edison H. S., Minneapolis, Minn.

Joke of the Week

***Bob:* "What was George Washington noted for?"**

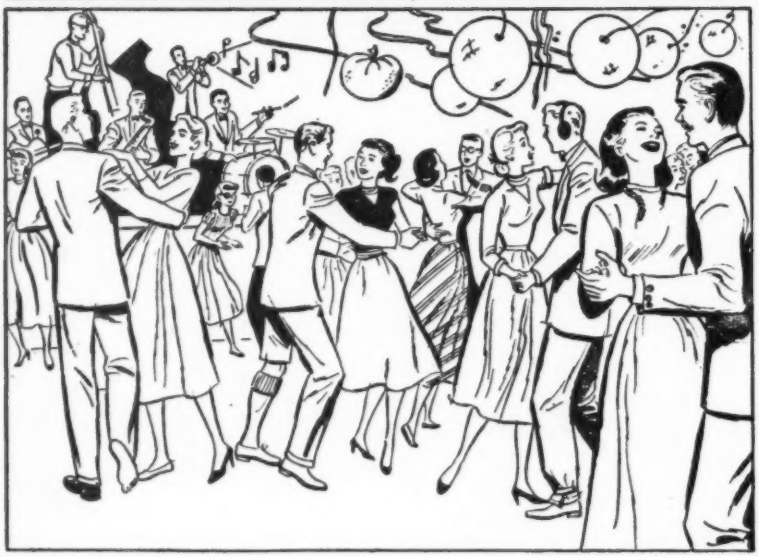
***Sam:* "His memory."**

***Bob:* "What makes you think his memory was so wonderful?"**

***Sam:* "They built a monument to it."**

Frederick Lee Lewis, Mor[illegible] School, Shaker Heights, O.

LAST CHANCE TO ENTER THE PLANTERS PEANUTS PRIZE CONTEST!



FIND 10 MISTAKES IN THIS PICTURE AND FILL IN THE LAST LINE OF THE LIMERICK BELOW!

There was a young fellow named Pete
Who discovered a wonderful treat.
So he went to the store
And cried, "Give me more!"
Example:
It was Planters he wanted to eat!

READ THESE PLANTERS PEANUTS CONTEST RULES CAREFULLY

1. Anyone under the age of twenty may compete.

2. Study the scene above and list on a sheet of paper ten mistakes you find in it. State each carefully and clearly. With your list submit a last line to the above limerick.

3. Each contestant may submit more than one entry. Send empty Planters bag, wrapper or label bearing a picture of Mr. Peanut with each entry, or send a hand-drawn facsimile showing Mr. Peanut. On top of page write your name, age, home address, city, and state. Fasten the bag, wrapper or picture to your entry.

4. Mail entries to Planters Contest Editor, 33 West 42 Street, New York 36, N. Y., to arrive by midnight, Feb. 22, 1955. No entries accepted after that date.

5. Prizes will be awarded to those submitting correct list of 10 mistakes, and whose limericks are considered best by the judges.

The judges' decision is final. Winners will be announced in the issue of this magazine of April 27, 1955, as well as by direct mail. No other acknowledgement of entries will be made. In the event of a tie for any prize offered, a prize identical with that tied for will be awarded each tying contestant.

231 PRIZES!

1st prize	$35.00
2nd prize	$25.00
3rd prize	$15.00
4th prize (3) . .	$10.00 each
5th prize (5) . .	$ 5.00 each
6th prize (20) .	$ 1.00 each

200 Honorable Mentions—two 8-oz. vacuum-packed tins of Planters Peanuts.

VOLUME 36 NUMBER 2 FEBRUARY 9, 1955

Send the best snapshots you have taken to Shutterbug Editor, Junior Scholastic, 33 West 42 St., New York 36, N. Y. If your picture is good, you will receive a Shutterbug button.

DO NOT DISTURB. Photo taken by Elaine Weber, P.S. 27, Jersey City, N. J.

NEW MOVIES

✓✓✓✓Tops, don't miss. ✓✓✓Good. ✓✓Fair. ✓Save your money.

✓✓✓✓**UNCHAINED** (Hall Bartlett). Here's an off-beat prison picture about an unusual kind of prison. It's called Chino and it's an experimental prison without bars in California. The men here are given responsibility, put on their honor. And the system works! *Unchained* tells how and why. Based on actual stories of the men at Chino, the film has a splendid sincerity about it. Chester Morris is excellent as Warden Scudder, and football star Elroy Hirsch appears as one of the convicts.

✓✓✓**OPERATION MANHUNT** (United Artists). A few years ago newspapers told the story of how a Soviet spy ring was smashed in Canada. Igor Gouzenko was the man who supplied Canadian police with the information they needed. He has been in hiding ever since. This is his story—the story of what it feels like to live with your life in danger every moment. Television actor Harry Townes heads a cast of unknowns, most of them Canadian. *Operation Manhunt* has more than its share of spine-tingling moments.

✓✓✓**CATTLE QUEEN OF MONTANA** (RKO-Radio). The land-grabbers are at it again. Gene Evans, with the help of some Indians, tries to drive Barbara Stanwyck from her Montana grazing grounds. He also steals her cattle. But Barbara teams up with Ronald Regan to claim her own. There's plenty of action and the Montana backgrounds, in color, are all strikingly handsome.

Citizenship Quiz

RATE YOURSELF: 90-100—Good work! 80-89—Better than average; 70-79 — Fair; Below 70 —How about more work?

Student's Name_____

1. NEWS ON PARADE

Check the correct ending to each of the following statements. Score 7 points each. Total 42.

1. The man shown in the cartoon above is head of the
   a. Formosan rebels.
   b. Chinese Communists.
   c. Chinese Nationalists.

2. The island of Formosa is threatened with invasion by
   a. Indonesia.
   b. Red China.
   c. Japan.

3. A new road-and-railway system which spans South America provides an outlet to the sea for landlocked
   a. Bolivia. b. Paraguay. c. Argentina.

4. The fastest natural wind ever recorded, reports the U. S. Weather Bureau, is
   a. 75 mph b. 392 mph. c. 1,000 mph.

5. Nature's fastest wind speed is no match for man-made winds. U. S. scientists have whipped up winds which travel
   a. 1,100 mph.
   b. 11,400 mph.
   c. 110,000 mph.

6. The world's deepest hole, drilled near Bakersfield, Calif., was intended to be
   a. an oil well.
   b. a coal mine.
   c. a fresh water spring.

My score_____

2. HERE'S SOUTH AFRICA

Link each incomplete sentence in **Group I** with the correct ending in **Group II** by writing in each blank the letter of the answer you select. Score 7 points for each. Total 42.

Group I

__1. The biggest zoo in the world is the

__2. The first white settlers in South Africa were

__3. Most of South Africa is covered by a great

__4. One industry in which South Africa leads the world is

__5. All members of the South African parliament are

__6. A majority of South Africa's population are

Group II

a. British.
b. Negroes.
c. forest.
d. desert.
e. gold mining.
f. Dutch.
g. white persons.
h. the West Indies.
i. Kruger National Park.
j. plateau.
k. fishing and farming.
l. Indians.

3. REPORT ON FRANCIE

Whoever wrote this report on Francie's trip (*page 25*) didn't read the article very carefully. Can you straighten it out by writing the correct word next to each mistake in *italics*? Score 4 points for each. Total, 16.

Francie Huffman, who lives in Massillon, *Virginia* (1)_____, flew to *Asia* (2)_____ last spring to attend schools in several countries. The first country she visited was Portugal and the second was *France* (3)_____. There, she stopped at a school in Madrid. The girls in the school nicknamed her "*Americanola*" (4)_____, which means "little American senorita."

My score_____ Total score_____

watch your language!

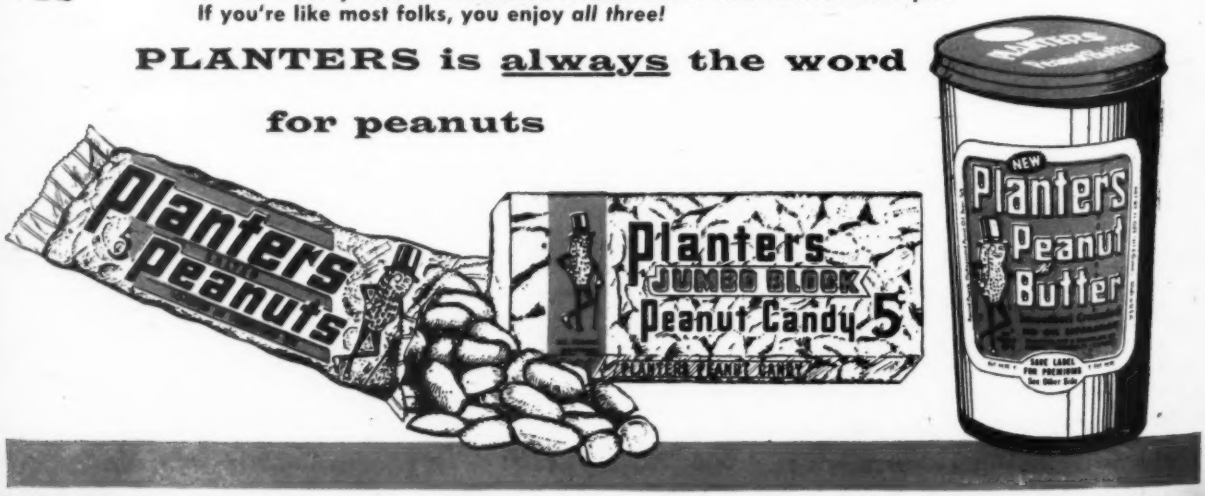
don't say
MARE

when
you mean
MAYOR

A *mare*, of course, is a "lady" horse, while a *mayor* is the chief executive of a city or borough. The two words look alike, but there's a world of difference in their meaning.

That's the way with PLANTERS PEANUTS, too! They are big and plump and once you've tasted them you'll recognize a world of difference in their flavor and goodness. Which PLANTERS product is *your* favorite? Is it the famous 5c bagful of delicious salted peanuts? The tasty, crunchy Jumbo Block Peanut Bar? Or the creamy smooth PLANTERS Peanut Butter that comes in the jar? If you're like most folks, you enjoy *all three!*

PLANTERS is always the word for peanuts



A Lesson Plan for

General Electric Highlights of 1954

A Report to the Young People of the Nation

Aims

To call students' attention to the recent results of research and pioneering in the electrical industry—results which help to keep America strong in a troubled world and which help to make life more happy and comfortable at home; to point out to young people possible careers in a challenging and rapidly expanding field where thousands of able young workers are needed.

"Opportunities Unlimited"

Here is an opportunity for each of your students to contribute to a classroom project according to each student's individual interests. Boys will be interested in the scientific and technical developments in the electrical field—in recent developments in aviation, photography, use of atomic energy, etc. Girls will be interested in home appliances and homemaking.

This unit offers students an opportunity to draw on community resources—to visit a power plant or a modern store selling electrical appliances. Students also may want to learn how to "read" pictures meaningfully—how to get the most from a story that combines pictures and text materials to tell an exciting, factual story.

Discussion Questions

What indications are there that the electric industry may make even more rapid progress in the next 75 years than it did in the last 75 years? How has the electric industry helped America *outproduce* all of the rest of the world combined? What new method for improved highway lighting was installed in 1954? What improvement was made in auto headlights? What are some examples of "unseen servants" in the home? What is a moving sidewalk or "speedwalk"? How is commercial X-ray used to check canned goods? What are some new developments to improve photography? What may the all-electric home of 1964 be like?

In what ways did General Electric contribute to national defense in 1954? How is individual *research* an investment in both our personal and our country's future? Why is the transistor replacing the electron tube for many purposes? What career fields in the electric industry interest you most? Would you be interested in becoming an engineer? In research work? Have you read your library's pamphlets and articles on research in physics? In chemistry? Have you read about the free apprenticeship training courses that General Electric and other industries offer qualified young people who want to become skilled workers or supervisors?

Things to Do

1. Report on new developments in some phase of atomic energy that interests you—in medicine, in transportation, in national defense.
2. Describe commercial uses for X-ray.
3. Draw a sketch of the giant circuit breaker (p. 5) and write a suitable caption for your drawing.
4. Make a list of electrical appliances and motors in your home.
5. Report on the new moving sidewalks ("speedwalks") which are being installed in a number of cities.
6. Report on the new home appliance that interests you most after you've inspected such an appliance in a local store. (Suggestions: electric washing units, refrigerator, television set, clock radio, dishwasher.)
7. Describe the all-electric house of the future.
8. Draw a diagram of an ideal all-electric kitchen which you would like to have in your home.
9. Make a "word book" of electrical terms such as *generator*. Define each word.
10. Make a picture notebok of modern transportation—aviation, railroads, shipping. Explain the latest developments in engines.
11. Report on a career field in the electrical industry which might interest you — engineering, factory - assembly work, demonstrating finished products, sales, etc.
12. Try to predict what new products the electrical industry will develop on both the war and home fronts during the next 75 years. Will atomic energy be used to make electricity?
13. After reading newspapers on the subject, write a brief, factual account of the *Nautilus*, the new atomic-powered submarine.
14. Write an imaginative story of the "adventures" of a submarine like the *Nautilus*.
15. Write an imaginative account of an atom-powered airplane.
16. Draw a picture of the transistor and write a description of what it is and how it may be used in the future to replace vacuum tubes. Tell what advantages it has over use of vacuum tubes.
17. Make a picture notebook of electrical equipment used in the home —stoves, refrigerators, radio and TV sets, fans, and other equipment. Use pictures clipped from magazines.
18. Tell how electricity has changed the food industry—the home preservation of food, the development of the frozen food industry (which requires electrical equipment in stores, etc.).
19. Visit a local branch of the electric industry—a plant of General Electric or a branch of the company that makes electricity for your community. Write a report of your visit.

Electric Quiz

Place the *letter* preceding the correct answer in the space to the left.

__1. The major purpose of a *generator* is to
  a. build dams
  b. produce rain
  c. produce electrical power

__2. The chief purpose of an *industrial X-ray machine* is to
  a. stop cancer
  b. prevent radiation
  c. uncover any defects in metal

__3. *Radar screens* are used chiefly to
  a. show three-dimensional motion pictures
  b. predict weather
  c. spot moving aircraft

__4. For many uses, the *vacuum tube* is being replaced by the
  a. reactor
  b. transistor
  c. radar

__5. The latest type of lighting for modern highways is
  a. neon lighting
  b. arc lighting
  c. fluorescent lighting

__6. The TV set of the future may be a
  a. crystal ball
  b. picture or easel-type
  c. disc sunk in floor

Answers: 1-c; 2-c; 3-c; 4-b; 5-c; 6-b.

Terminal Activity

Encourage students to write a letter commenting on General Electric's "Highlights of 1954." Address letters to General Electric Co., c/o *Scholastic Magazines*, 33 W. 42nd St., New York 36, N. Y.

Listenables and Lookables

Notes on selected network radio and TV programs for teachers and students • EDITED BY MORRIS GOLDBERGER

All times shown are current in Eastern zone.

WEDNESDAY FEBRUARY 9

7:30 p.m. (ABC-TV) **Disneyland:** Walt Disney will show how his True Life Adventures are filmed. One of the adventure films, "Nature's Half Acre," will follow this behind-the-scenes sequence.

9:00 p.m. (NBC-TV) **Kraft Theatre:** "Patterns" by Rod Serling is the story of the top executive of a big business and the decision of one of his employees to challenge his pattern of ruthless competition. This is the same play that was presented on January 12. The "live" repeat performance less than a month after its initial production, an unprecedented move in network programming, is the result of considerable critical acclaim and viewer response.

(Dumont) **Chicago Symphony Orchestra:** George Schick conducts an hour-long concert.

10:00 p.m. (CBS) Planned for each Wednesday night at this time is a recording of the weekly Presidential press conference.

THURSDAY FEBRUARY 10

2:00 p.m. (DuMont) **All About Baby:** A fifteen-minute program, on twice a week (Thursday and Friday), which discusses baby care. Suggested for in-school viewing by home ec classes.

8:30 p.m. (CBS-TV) **Climax:** "The Valiant Men" stars Robert Young in a modern melodrama.

9:30 p.m. (ABC) **Photoplay Gold Medal Awards:** Presentation of 1954 winners for most outstanding performances by best actor and actress, the best film of the year, and other phases of the movie industry. Dick Powell is master of ceremonies.

(CBS-TV) **Four Star Playhouse:** Dick Powell stars in a mystery drama entitled "Fair Trial."

(ABC-TV) **Pond's Playhouse:** E. P. Conkle's "Prologue to Glory" (about Lincoln).

(NBC-TV) **Ford Theatre:** "Pretend You're You" stars Charles Coburn in a farce-comedy about mistaken identities on board a train.

FRIDAY FEBRUARY 11

9:00 p.m. (CBS-TV) **Playhouse of Stars:** Will Rogers, Jr., plays a Civil War veteran and schoolteacher who journeys to the new state of Oregon prepared to teach the frontiersmen democracy, but encounters instead the holdovers of wartime antagonisms, in "Mr. Schoolmarm."

10:30 p.m. (CBS-TV) **Person to Person:** Esther Williams, swimming star of motion pictures, and her family are televised in their Los Angeles home.

SATURDAY FEBRUARY 12

12:00 noon (NBC) **National Farm and Home Hour:** A report on the Michigan State College Centennial.

12:30 p.m. (CBS) **Saturday Theatre:** This new half-hour drama program presents both original stories and adaptations of classics.

1:30 p.m. (MBS) **Symphonies for Youth:** Included in today's program are Deems Taylor's "Through the Looking Glass" and selections from Bizet's L'Arlesienne Suites.

2:00 p.m. (ABC) **Metropolitan Opera:** Mozart's "Don Giovanni."

9:00 p.m. (NBC-TV) **Oscar Nominations:** Jack Webb will be master of ceremonies for the first telecast of the Motion Picture Academy nominations ceremony. (The actual awards ceremony will take place March 30.) Plans include a sequence to reveal how set designers work and a demonstration of a model submarine from a Walt Disney film.

10:00 p.m. (MBS) **Chicago Theatre of the Air:** A special Lincoln program features Henri Noel.

SUNDAY FEBRUARY 13

9:15 a.m. (NBC) **Carnival of Books:** Today's book is "The River Road" by Meridel Le Sueur (WRCA, N. Y., one week later at 8:15 a.m.), the little known story of Lincoln's trip down the Mississippi to New Orleans while still in his teens.

10:35 a.m. (ABC) **Negro College Choirs:** The choral group featured this week is from St. Augustine College in Florida.

11:30 a.m. (CBS) **Invitation to Learning:** A discussion of Sigmund Freud's "The Psychopathology of Everyday Life."

1:00 p.m. (NBC) **Anthology:** Fleetwood is host-narrator in this program of poetry readings and commentary.

(NBC-TV) **Princeton '55:** Scheduled for today is a program on the Near East conducted by Prof. Joseph Thomas.

3:00 p.m. (DuMont) **Johns Hopkins Science Review:** "The Doctor and the Artist" is today's title. Mrs. Ranice Birch Davis, Director of the Johns Hopkins School of Art as Applied to Medicine (the first school of its kind in the country), will show how the artist works with doctors as part of the medical team.

(NBC-TV) **Elder Wise Men Series:** John Hall Wheelock, poet and editor of Scribner's, will be interviewed by Davidson Taylor.

4:30 p.m. (CBS-TV) **The Search:** A report on the Physical Fitness Research Center at the University of Illinois. As a result of a quarter century of study by Dr. Thomas Cureton, new facts are revealed which throw light on the shocking physical deterioration of Americans over 25. Demonstrated in his tests and training program is the fact that middle age begins at 25 and that most Americans neither recognize this fact nor pay much attention to their physical condition. Dr. Cureton shows the simple heart and blood vessel training programs which can reverse the trend of premature deterioration.

(NBC-TV) **Zoo Parade:** Today's theme is "Africa, U. S. A."

5:00 p.m. (NBC) **Inheritance:** Abraham Lincoln is the subject of a historical drama presented in cooperation with the American Legion.

6:30 p.m. (CBS-TV) **You Are There:** "The Tragic Hour of Dr. Semmelweis" is the story of the crisis in the life of the famed obstetrician.

8:00 p.m. (ABC) **America's Town Meeting:** "Desegregation—Law and Practice" is the subject. Speakers are Sen. Paul Douglas (D.-Ill.) and Sen. Allen J. Ellender (D.-La.).

9:00 p.m. (NBC-TV) **Goodyear Playhouse:** J. P. Miller's "The Rabbit Trap" is the story of a harried employee who finds he must stand up to his boss or lose his son's respect.

(NBC) **Adventures of Sherlock Holmes:** A dramatization of "The Dying Detective."

10:00 p.m. (NBC-TV) **Loretta Young Show:** "Dickie" is the story of a little boy with a flair for theatrics, who would rather put on marionette shows than go to school.

MONDAY FEBRUARY 14

8:00 p.m. (ABC-TV) **TV Reader's Digest:** Richard Denning has the featured role in "I'd Pick More Daisies" based on a Reader's Digest article by Don Herold.

8:30 p.m. (ABC-TV) **Voice of Firestone:** Today's guest for this musical simulcast is Ferruccio Tagliavini, Metropolitan Opera tenor.

9:00 p.m. (NBC-TV) **Medic:** "Flash of Darkness" is a dramatization of a hypothetical H-bombing of Los Angeles. The drama deals with the efforts of doctors and civil defense personnel following an H-bomb attack and their efforts to bring order out of chaos. At the conclusion of the program, Val Peterson, national civil defense administrator, will point out how much can be saved from total destruction by adequate medical and civil defense preparation.

(ABC) **Metropolitan Opera Auditions:** Guest vocalists vie for a contract at the Met. Milton Cross is narrator.

(NBC) **Telephone Hour:** Lily Pons is the featured artist.

9:30 p.m. (NBC-TV) **Robert Montgomery Presents:** "The Breaking Point," a serious drama, is from the pen of Alfred Geto.

10:00 p.m. (CBS-TV) **Studio One:** "The Broken Spur" is a Western by Reginald Rose, the author of "Twelve Angry Men." When the townspeople of Broken Rock discover that Sheriff Temple has been shot, they just take it for granted that John, his son and deputy, will take over. But John is a quiet, sensitive, peace-loving man—the exact opposite of his hard-hitting father—and he doesn't want to take over the sheriff's office. However, when Robbie, John's 10-year-old son, inadvertently discovers the killer's identity, John comes to a quick decision that brings the story to a surprising climax.

TUESDAY FEBRUARY 15

9:00 p.m. (NBC-TV) **Fireside Theater:** In "No Place to Live," Robbie and Julie Edwards take refuge, with their infant son, in an empty house in a new housing development. When they confront a hard-boiled realtor in court and answer his charges with suggestions for improving his houses, the Edwards soon find that they no longer have "no place to live."

9:30 p.m. (ABC-TV) **U. S. Steel Hour:** "Freighter," by George Lowther, stars Thomas Mitchell, James Daly and Henry Hull. The story deals with the bitter personality conflicts on board a cargo ship enroute to Hong Kong.

(NBC-TV) **Circle Theatre:** Scheduled for today is "I Found Sixty Million Dollars," a dramatization of Charles Steen's true story of his uranium mine discovery.

ADVANCE ITEMS: February 20, 7:00 p.m. (NBC) **Radio Tributes Series:** Carl Sandburg's works and life will be dramatized.

February 21, 10:00 p.m. (CBS-TV) **Studio One:** A dramatization of "The Eddie Chapman Story," based on the book by Frank Owen. This is the almost incredible but true story of a London safecracker who, during World War II, worked for Hitler and British Intelligence at the same time.

February 22, 9:30 p.m. (ABC-TV) **Elgin Hour:** "A Sting of Death" is a full-hour mystery drama starring Boris Karloff.

February 22, 9:00 p.m. (NBC) **Lux Radio Theatre:** Van Heflin and Ruth Hussey star in an adaptation of "Shane."

March 2, 10:00 p.m. (CBS-TV) **Best of Broadway:** "The Guardsman," Ferenc Molnar's famous comedy, stars Claudette Colbert in the role of the temperamental actress-wife.